



# Rawalpindi Medical University

## 3<sup>rd</sup> Annual Faculty Research Conference 17<sup>th</sup> December 2022



## ABSTRACT BOOK



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3<sup>rd</sup> Annual Faculty Research Conference

17 December 2022

Rawalpindi Medical University

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Prof. Dr. Muhammad Umar

Vice Chancellor

Rawalpindi Medical University

Patron in Chief

Faculty Research Forum

## Message from the Vice Chancellor RMU

Faculty Research forum has been a vision I've held for long now and to see it finally materialize has been a source of great pride and delight to me. There is little more pleasing for a mentor than to see his pupils and juniors strive to excel and compete to be at par with the world at large. At Rawalpindi Medical University we are fervently committed to maintaining highest standards of academia to produce top tier professionals. Research is undeniably a need of the hour being instrumental to the very life of a good health care system. It is imperative for our country to harbor and foster a drive and duty to it. The world of medicine and healthcare is evolving at a relentless pace and the Doctor of today must be trained and educated accordingly. Beginnings are always tough at first and introducing a new system and culture of thought and directives tougher. However, to find multiple like-minded individuals who made the inception of the forum possible has been a relief and good fortune for me. Together, I believe Rawalpindi Medical University is on the brink of a new precedent of the current medical terrain. With the grace of God almighty and a vision rooted in noble and necessary aspirations, I hope to see all our faculty be a part of the forum and work together for its agenda and resolution.

After completion of 2nd<sup>nd</sup> faculty research conference in December, 2021 I am sure this 3<sup>rd</sup> faculty research workshop will set new standards for upcoming faculty.



Prof. Dr. Muhammad Waqas  
Raza

Patron in Charge

Faculty Research Forum

## Message from Patron in Charge FRF

All great institutes are built on the principle of self-evaluation & spirit for self-improvement. In order to progress It is essential for one to honour the principles of the scientific method. FRF was formed with the same ideal at its centre & thus it is a great honour to me to be associated with it for last three years. Over this time, have seen it expand and establish itself as an integral component the university. It's progress is a hallmark of the commitment of RMU to maintain academic excellence & to harbor itself as a world class center of scientific progress and innovation.

To search, verify and rigorously review ones work upholds the credibility of all research work & it is on this exercise that the viability of medical practice depends. FRF conference serves as an avenue for professionals from multiple disciplines to present & elaborate their work. I further hope that going beyond just this as its primary purpose , it will ultimately serve as grounds for the birth of new research questions & ideas. Exchange of ideas & brain storming is the best prophylaxis against preventing intellectual static & stagnance.

The arrival of this annual union once more reminds me of what inspired me to take on the lifestyle of a scientist in the first place. At the end of the day every doctor is a researcher/scientist striving to improve the quality outcome and healthcare of his patients who are entrusted to him/her. It is ones moral & professional responsibility to honor the privilege of being certified a healthcare provider. Medicine not based on evidence in todays world is criminal & obsolete. It Is my sincerest hope that this conference and the effort put into it will flourish and highlight the importance of research culture & innovative ideas in all those affiliated with RMU. A doctors ultimate goal is better prospects of his patients & research is a simply the key instrument to achieve this end.

# OFFICE BEARERS OF FACULTY RESEARCH FORUM

## RAWALPINDI MEDICAL UNIVERSITY



Prof. Dr. Muhammad Waqas Raza

Patron in Charge FRF



Dr. Ahmed Hassan Ashfaque

President FRF



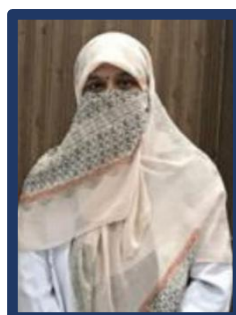
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Dr. Arsalan Manzoor

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Dr. Malik Irfan Ahmed

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Dr. Fariha Sardar

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# TASKS WORK SHEET

## ANNUAL FACULTY RESEARCH CONFERENCE 2022

1.	Focal Person –Finance	Dr. Rizwana Shahid, DME
2.	Focal Person – Printing and Publication	Dr. Asher & Dr. Arsalan
3.	Focal Person – Posters Presentations	Dr. Ali Kamran
4.	Focal Person – Oral Presentations	Dr. Shawana Sharif
5.	Focal Person - Liaison	Dr. Waqas Raza
6.	Venue Manager	Dr. Sidra Hamid / Dr. Arsalan
7.	Abstracts Book	Dr. Malik Irfan & Dr. Ali Kamran
8.	Quality Assurance	Dr. Rizwana/Dr. Arsalan
9.	Propagator and Registration In charge	Dr. Irfan
10.	Online Conference Manager	Dr. Malik Irfan Ahmed
11.	Refreshment In charge	Dr. Kashif

## Duties of Members of Faculty Research Forum in FRF Conference on 17th Dec, 2022

Teams	Task	Name	Department
Welcome Committee	VC Office, Main Campus	Prof. Dr. Muhammad Waqas Raza	General Surgery DHQ
	Inaugural Session Lecture Hall-1	Dr. Aimen Malik	Department of Emergency Medicine
		Dr. Sabeen	Gynae HFH
	Registration Desk	Dr. Ali Kamran	Surgical Unit DHQ
		Dr. Ali Tasadq	Neurosurgery DHQ
Inaugural Session	Stage Secretary	Dr. Soban Sarwar	Neurosurgery DHQ
	Seating & Coordination	Dr. Zafar Iqbal Dr. Umar Qaisar	Surgical Unit DHQ
	Recitation of Holy Quran	Dr. Kiran Saleem Butt	Surgical Unit II HFH
Refreshment	Faculty Tea Room	Dr. Ahmed Hassan Ashfaq	ENT BBH
	Lecture Hall	Dr. Arshad	ENT BBH
		Dr. Haitm	ENT HFH
Breakt	Lecture Hall-1 Medicine & Allied	Organisers/Moderators	BBH Medicine
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	Lecture Hall-2 Surgery & Allied	Dr. Huma Sabbir Khan Dr. Kiran Saleem	Surgical Unit II BBH Surgical Unit II HFH
	Lecture Hall-3 Gynecology & Paediatrics	Dr. Saima Khan Dr. Tabinda	Gynea Obs, DHQ and HFH
	Lecture Hall-3 Basic Sciences, EYE, ENT & Medical Education	Dr. Ashar Alamgir Dr. Maria Zubair	ENT HFH Eye BBH



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## 1. Correlation of Serum Sodium with Severity of Ascites in HCV related Liver Cirrhosis Abstract

Dr Saima Ambreen

### Introduction:

Pathological collection of fluid in abdominal cavity is called ascites. One of the important complication of chronic liver disease is ascites along with variceal bleed and hepatic encephalopathy. Cirrhosis is the 12th leading cause of death in the US, with 32,000 people dying each year. More men die of cirrhosis than women. Hyponatremia in cirrhosis is one of the risk factor predicting mortality in end stage liver disease. There was a study which included 997 cirrhotic patients in 2006.

**Objective:** To determine frequency of Hyponatremia among HCV related chronic liver disease patients with ascites. To compare serum sodium among HCV related chronic liver disease patients with different severity of ascites.

### Methodology:

**Study Design:** Descriptive cross sectional study **Setting:** The study was conducted in the Department of Medicine, Medical Unit-1 and Gastroenterology, Holy Family Hospital, Rawalpindi.

Measurement of serum sodium at the time of admission. Three groups of patients were formed. Serum sodium of less than 125mmol/L, serum sodium between 125 and 129mmol/L & serum sodium between 130mmol/L to 134mmol/L. Patients fulfilling the criteria will be selected from Medical Unit 1 and Department of gastroenterology Holy Family Hospital by consecutive sampling method. Written informed consent will be obtained from

patients. Information regarding patient's presentation was noted on a pre research questionnaire designed by a trainee. Serum sodium was sent in hospital lab and will be measured by ISE (ion specific electrode technology).

**Results:** Total 291 patients were included. Mean age (years) of patients in the study was 48.82±14.24 whereas male and female patients were 169 (58.1) and 122 (41.9). In our study, frequency of hyponatremia (mild, moderate, severe) among HCV related chronic liver disease patients with ascites was 135 (46.4), 54 (18.6) and 102 (35.1) respectively whereas among patients with Grade 1 ascites, mild & severe serum sodium was noted as 119 (62.8) and 54 (28.4) respectively and it was highly significant statistically (p-value 0.000).

**Conclusion:** The conclusion of the study is that a substantial frequency of hyponatremia was noted among HCV related chronic liver disease patients with severity of ascites. As, Pakistan is a resource constrained country with increasing prevalence of HCV and treatment options like liver transplant and Transjugular intrahepatic porto systemic shunting (TIPS) are not readily available. So a simple tool like serum sodium is required to identify those patients who are at risk of developing complications of chronic liver disease timely.

**Keywords:** Ascites, Liver, Hyponatremia

## 2. Risk factor profile of dengue hemorrhagic fever in adult patients attending a tertiary care hospital in Rawalpindi, Pakistan

Dr. Humera Nasim

**Background:** Dengue hemorrhagic fever (DHF), a possibly deadly indication of dengue disease, its first interaction with the human was during the 1950s during dengue plagues in the Philippines and Thailand. Today, DHF in South Asia causes a noteworthy number of passings. The distinguishing proof of danger variables of DHF has its suggestions for clinical practice. It enables the doctors to organize care during a flare-up of dengue disease. Plus, it offers a sign to the investigation for pathogenesis of dengue disease.

**Objective:** To decide the frequencies of danger elements of dengue hemorrhagic fever patients going to a tertiary consideration clinic in Rawalpindi, Pakistan.

**Methods:**

In this descriptive cross-sectional study, 256 patients with diagnoses of DHF were selected. Comprehensive history, physical assessment and biochemical estimations were recorded. Patients were followed to see for outcome variable i-e risk factors for DHF (age, gender, secondary infection, DM, HTN, hyperlipidemia).

**Results:**

Among the 256 patients satisfying the incorporation models, the mean  $\pm$  standard deviation period of study populace was  $28.4 \pm 12.151$  years.

On examination of socioeconomic information it was seen that 162 (63.28%) were below 40 years of age & 94 (36.72%) were of age 40 years and above (FIG I). 181 (70.70%) were males and 75 (29.30%) were females.

On analysis of frequency of outcome variable 26 (10.8%) patients had DM. 55 (21.5%) had hypertension, 25 (9.8%) had hyperlipidemia and 192 (75%) had secondary infection.

Stratification of age, gender, DM, HTN, hyperlipidemia and secondary infection is mentioned in tables III through IX

**Conclusion:**

Secondary infection was most common danger factor in patients with DHF. Patients younger than 40 were more common than older patients. Males were predominately affected more

**Key words:** DHF, DM, IgM, Dengue, hypertension.

### 3. Mean Platelet Volume and Acute Stroke Patient Characteristics

Nida Mahmood

**Objective:** Platelet indices are considered as an important marker of inflammation and thromboembolism. Out of these platelet indices, mean Platelet volume (MPV) changes have been associated with cardiovascular diseases. The objective of this study was to compare MPV in patients with ischemic and hemorrhagic acute stroke. Additionally, correlation of MPV with gender, risk factors, severity of stroke, and outcome was also done.

**Methods:** This cross-sectional study was conducted from October 2018 to March 2019 at Rawalpindi Medical University Allied Hospitals. 94 acute stroke patients (ischemic or hemorrhagic- intracerebral or non-traumatic subarachnoid hemorrhage) were included. Patients with stroke mimicking conditions, hematological abnormalities associated with platelet number/quality, and on antiplatelet and anticoagulant drug etc.

were excluded. At presentation blood sample was drawn for MPV determination by single automated hematology analyzer machine within 2 hours of venipuncture. Chi2 test, Fishers exact test, Student-t test, and ANOVA were used for finding significant association. P-value < 0.05 taken as statistically significant.

**Results:** 53.2% were female and the rest male. Mean patient age was  $58.67 \pm 16.37$  years. 59.75% patients had hemorrhagic stroke and 40.4% had ischemic stroke. Most frequently noted risk factors for stroke were hypertension (53.2%) and diabetes mellitus (16%). 94.7% patients at admission Modified Rankin Score was >3. Mean GCS of all patients was  $9.9 \pm 3.79$ . MPV of all the patients were  $8.9 \pm 0.85$ . Similarly, mean platelet count was  $268.26 \pm 76.06 \times 10^3/l$ . On 7th day of admission, outcome wise, 88.3% patients were alive and rest expired. MPV among ischemic and hemorrhagic patients did not differ significantly. Correlation of patient's characteristics with MPV was also statistically insignificant.

**Conclusion:** MPV in ischemic and hemorrhagic acute stroke patients doesn't differ. MPV values are also not associated significantly with gender, risk factors, stroke severity and outcome.

**Keywords.** Mean Platelet Volume, Acute Stroke, Intracranial Hemorrhage.

#### 4. Effect of Dapagliflozin on HbA1c in Type 2 Diabetics: A Descriptive

### Prospective Uncontrolled Before and After Study.

Dr. Nida Mahmood

**Objective:** To determine the efficacy of Dapagliflozin and its effect on HbA1c in Type 2 Diabetic patients.

**Methods:** We had conducted our descriptive study in the outdoor patient department of Holy Family Hospital, Rawalpindi. Hundred, Type 2 diabetic patients of both genders were enrolled through consecutive sampling to assess the efficacy of Dapagliflozin, an SGLT2 inhibitor in a Pakistani population. Those patients with HbA1c of  $\geq 7\%$  who had fulfilled our inclusion criteria were given Dapagliflozin 10mg as either monotherapy or add-on therapy. HbA1c, BP, and body weight were noted at the start of drug therapy and after 12 weeks of drug use. The primary endpoint was  $\geq$  a 10% relative percentage reduction of HbA1c after 12 weeks.

**Results:** Out of 100 subjects there were 40 males and 60 females in our sample. The average age of the patients was  $49.37 \pm 11.38$  years. Dapagliflozin was given as a monotherapy to only two patients and others as an add on the drug. The average relative percent reduction after 12 weeks of treatment in HbA1c was  $11.68 \pm 6.20$ . The sample results showed that the drug Dapagliflozin is effective for 62% of patients hence based on the sample results we conclude that the Dapagliflozin is effective against type 2 diabetics in our

population for at least 53% of patients with a p-value of 0.034.

**Conclusion:** Over the period of 12 weeks, Dapagliflozin has shown a significant reduction in HbA1c and body weight of Type 2 diabetics in the Pakistani population. Once-daily dosing and a low rate of hypoglycemia make it a cost-effective and safe drug as well.

**Keywords:**

Hb A1c, SGLT-2 inhibitors, and Dapagliflozin.

## 5. Efficacy And Safety Of Intra-Articular Platelet-Rich Plasma And Corticosteroids In Treatment Of Mild To Moderate Knee Osteoarthritis

Dr. Shamaila Mumtaz

**BACKGROUND:** Osteoarthritis is the most prevalent type of arthritis, which has significant impact on patient's mobility and quality of life. Pharmacological treatments such as corticosteroids, produce an immediate reduction in patient's pain thus improving patient's mobility and quality of life but lack long-term efficacy. Intra-articular injection of Platelet-rich plasma (PRP) represent a therapeutic tool due to its ability to control inflammatory processes. The aim of this study is to evaluate and compare the clinical benefits of PRP when injected intra-articularly

versus a commonly used corticosteroid (methylprednisolone) in patients affected by mild to moderate symptomatic knee osteoarthritis.

**METHODS:** 50 patients affected by symptomatic radiologically confirmed knee osteoarthritis (Kellgren-Lawrence grades II–III) were enrolled in this study. Patients randomized in the PRP group ( $n = 25$ ) received an intra-articular injection of PRP (8 mL) while patients randomized in the CS group ( $n = 25$ ) received an intra-articular injection of methylprednisolone (1 mL of 40 mg/mL) plus lignocaine (4 mL of 2%). The pain and function of the target knee were evaluated by the VAS, IKDC and KSS at the baseline (V1), 1 week (V2), 6 weeks (V3), 12 weeks (V4), 24 weeks (V5), and 52 weeks (V6) after treatment.

**RESULTS:** No serious adverse effects were observed in both groups during the follow-up period. Both treatments were effective in relieving pain and improving the knee function at short-term follow-up visits (1 and 6 weeks). A high improvement of the subjective scores was observed for both groups up to 12 weeks, with no significant differences between the groups for the VAS, IKDC, or KSS. After 24 weeks of follow-up, the PRP group showed significant improvements in all scores when compared to the corticosteroid group. Overall the patients who received PRP treatment had better outcomes in a longer follow-up visit (up to 1 year) than those who received corticosteroids.

**CONCLUSION:** A single intra-articular injection of PRP or corticosteroid is safe and improves the short-term scores of pain and the knee function in patients affected

by mild to moderate symptomatic knee OA (with no significant differences between the groups). PRP demonstrated a statistically significant improvement over corticosteroids at 1-year follow-up

**KEYWORDS:** Platelet rich plasma, corticosteroids, osteoarthritis

### **6. Ineffective Motility(IM) revisited through High Resolution Manometry after Chicago Classification v4.0.**

Dr Tayyab Saeed Akhter.

#### **Introduction:**

With the advent of Chicago Classification v4.0, Ineffective Motility(IM) is no more considered a minor motility disorder. Rather with more stringent definition there is infect no place of minor disorders in this new classification system. If a patient fulfills the criteria of more than 70% ineffective or more than 50% absent swallows, he will be considered as having a significant motility disorder. Previously in CC v3.0 more than 50% of ineffective swallows were the cut-off mark for the IM and it was considered to be a minor disorder. Furthermore, CC v4.0 also incorporates the large peristaltic beaks of >5 cm into account in an otherwise strong peristaltic wave with a Distal Contractile Integral(DCI) of > 450 mmHg.cm.s<sup>1</sup>.

#### **Aims and Objectives:**

Our Study aims to compare the utility of the two classification systems and to find out that in real world how many participants are eliminated from the list of motility disorders once analyzed though the new classification system of CC v4.0. We also redefined the patients previously

labelled as IM as primary or additional diagnosis as per CC v4.0.

#### **Materials and Methods:**

We assessed the esophageal motility of 57 patients with the diagnosis of IM as primary or additional diagnosis through HRIM presenting with dysphagia with normal upper GI endoscopies at Center for Liver and Digestive Diseases, Holyfamily Hospital, Rawalpindi, from Dec 2015 to Dec 2021. The HRIM results were re-analyzed as per Chicago classification v 4.0 to compare the two classification systems.

#### **Results:**

In this Cross-sectional observational study, a total of 57 patients were assessed with a mean age of 39.21± 17.718 with age range from 15 to 75 years [Fig 1]. 23(40.4%) of the study participants were males and 34(59.6%) were females [Fig 2] with a mean duration of symptoms of about 24.25 ± 40.091 months. Out of 57 patients 52(91.2%) showed concordance for the diagnosis of IM as per CC v0.3 as well as v0.4[Fig 3], whereas only 5(8.8%) patients no more qualify for the criteria for IM as per CCv0.4 and hence shall not be considered as a motility disorder. 9(15.8%) patients with IM also had an additional diagnosis of Esophageal Gastric Junction Outlet Obstruction(EGJOO) with raised IRP >15 mm of Hg and esophageal body topography not representing Achalasia I-III. As all these patients were symptomatic So as per CC v4.0 they are primarily labelled as EGJOO with peristaltic activity consistent with IM reducing true IM to 43(75.4%) only [Fig 4]. 32(61.5%) of the patients met both the criteria of ≥ 70% ineffective swallows as well as > 50% absent swallows whereas 20(38.4%) only met the criteria of ≥ 70 % ineffective swallows. None of the patient

fulfilled the sole criteria of  $\geq 50\%$  absent swallows but  $< 70\%$  ineffective swallows.

### **Conclusion:**

Our study suggests that CC v4.0 has made the nomenclature more stringent especially IM which was previously considered a minor disorder. About 9% of the individuals who were previously labelled as having motility disorder are now off-labelled and those who are really having IM are now considered as having major motility disorder. However, yet IM is a vast spectrum and more data and studies will further help us classify this sub-group with better segregation.

## **7. Seroprevalence Of Hepatitis E In Chronic Liver Disease Patients:**

Dr. Aqsa Naseer

**INTRODUCTION:** Hepatitis E virus (HEV) is a single-stranded RNA virus. Hepatitis E virus is a significant cause of viral hepatitis transmitted by the fecal-oral route. The infection with HEV induces acute or subclinical liver diseases.

When HEV causes Acute Viral Hepatitis in patients of chronic liver disease it may worsen rapidly to a syndrome called acute-on-chronic liver failure (ACLF). Acute deterioration of liver function in a patient with compensated chronic liver disease is the characteristic feature of ACLF. Many

publications have reported HEV as one of the leading causes for ACLF from Asia and Africa, where HEV is endemic. The mortality rate of HEV-related ACLF (HEV-ACLF) ranges from 0% to 67% with a median being 34%.

**MATERIAL AND METHODS:** This study was carried out at center for liver and digestive diseases, Holy Family Hospital Rawalpindi. After taking informed consent, participants were enrolled in the study. Blood sample was withdrawn and detection of Anti-HEV IgG antibodies was carried using a commercial Anti-Hepatitis E virus antibody (IgG) ELISA Kit in Pathology lab of the same hospital.

**RESULTS:** Total 101 patients were enrolled in the study. Out of these 68 (67.3%) patients had positive result while 33 (32.6%) were negative. In our study, 62.8% were male participants and 32% were 50 or above years of age. In our study, 45.7 % had chronic hepatitis B, 47.1% had chronic hepatitis C and 0.05% had non-hepatitis B and C related chronic liver disease. 67% participants were in child class A, 17% had child class B and 0.02% had child class C. There was no significant difference in HEV-

IgG seropositivity related to gender, cause of chronic liver disease or child class. However, seroprevalence of Anti-HEV IgG antibodies was significantly (P value <0.05) high in 50 years or more than 50 years age group as compared to the less than 50 years age group.

**CONCLUSION:** The study concluded that overall seroprevalence of Anti-HEV IgG antibodies is very high in chronic liver disease patients. We recommend further studies should be carried out to study whether seropositivity provides protection against reinfection with Hepatitis E and acute on chronic liver failure or not.

#### 8. Frequency and risk factors of internet addiction in medical students: A cross-sectional study

Dr. [Muhammad Azeem Rao](#)

**Objective:** To find out the frequency of internet addiction and to determine the risk factors associated with such addiction in medical students.

**Methods:** The descriptive cross-sectional study was conducted at the Rawalpindi Medical University, Rawalpindi, Pakistan, from July 2018 to August 2019, and

comprised medical students from all academic years aged 18-25 years who had been using the internet for at least the preceding two years. Data was collected using a self-administered questionnaire. Data was analyzed using SPSS 25.

**Results:** Of the 380 subjects, 37(9.7%) had no addiction, while 343(90.3%) had some level of addiction; 222(58.4%) mild, 115(30.3%) moderate, and 6(1.6%) severe. Online friendships, online relationships, online chatting, online shopping, online games and online series/movies were significant risk factors ( $p < 0.05$ ).

**Conclusions:** The frequency of internet addiction was found to be high among medical students, but it was mostly of the mild type.

**Keywords:** Frequency, Internet, Medical students, Risk factors.

#### 9. Impact Of COVID-19 On Mental Health Care Service Provision And The Pattern Of Morbidity Presenting To Outpatient Child Psychiatry Services In Pakistan.

Dr. Qurttulain

##### **Abstract:**

**Objective:** The study aims to determine the impact of COVID-19 on mental health care service provision and the pattern of morbidity presenting to outpatient child psychiatry services in Pakistan.

**Study design:** A descriptive cross-sectional study.

Place and duration of study: Child and Adolescent Mental Health Unit, Institute of psychiatry, Rawalpindi medical university, from Jan 2019 to Dec 2020.

Patients and methods: Hospital records for the year 2019 and 2020 were used to get data on total number of out-patient visits in both years, departmental OPD records were used to extract data on all new patients.

**Results** 2232 patients visited the Outpatient Department (OPD) in 2019, of which 856 (38%) were new patients. 536 patients visited OPD in 2020 of which 259 (48%) were new patients. Mean age of new patients was  $12.4 \pm 4.2$  years. 1028(46.1%) of these patients had behavioral disturbances, 314(14.1%) had emotional problems, 272(12.2 %) had delayed milestones, 241(10.8%) presented with fits and rest with mixed problems. The preponderance of presentation with behavioral disturbance was significantly ( $p < 0.05$ ) more in 2020 than that in 2019.

**Conclusion** The COVID-19 related lockdown and pandemic situation led to a sharp decline in outpatient visits out of keeping to the length of closure of services. The children and adolescents presenting with emotional and behavioral problems increased but the common diagnoses seen remained very similar.

**Keywords**

COVID-19, Child and Adolescent Mental Health Service, Child Psychiatry, Pandemic, School closure

## **10. Level of Stress and its Association with Socio-Demographic Factors Among Students of Allied Health Sciences**

Dr. Badur-un-Nisa

**Background:** To study the level of stress among the students of allied health sciences at Rawalpindi Medical College and association of stress with socio-demographic factors.

**Methods:** A cross-sectional study of six months duration was conducted at Allied Health Science department of Rawalpindi Medical College in 2015. A sample of 200 hundred students was drawn through Stratified random sampling. The data was collected through a semi-structured Performa and the Student Life Stress Inventory (SLSI) scale.

**Results:** Stress was observed in all 195 students (100%). The results showed that 25.1% of students were mildly stressed, 51.3% moderately stress and 23.6% were severely stressed. Relatively higher level of stress (58%) was found in the students of Prosthetics & Orthotics discipline, but no statistically significant difference was observed. ( $p = 0.42$ ). Amongst all, 81% female students were stressed as compared to only 19% male students ( $p = 0.03$ )

Conclusion Stress was present in all Allied Health Sciences (AHS) students. Moderate stress being most commonly prevalent, and it was more common in female students as compared to male students, irrespective of disciplines or academic

### **11. Perception of COVID-19 Vaccine among Health Care Workers Coming to Vaccination Centers in Rawalpindi Medical University and Allied Hospitals**

Dr. Sadia

**Background:** Health professionals' attitudes about vaccines are an important determinant of their own vaccine uptake and their likelihood of recommending the vaccine to their patients. The current study was done to determine the perception of vaccination against COVID-19 among health care workers coming to vaccination centers in RMU Allied Hospitals

**Materials and Methods:** The health care workers presenting to vaccination centers who gave informed consent to participate in the study were provided a questionnaire incorporating demographic details and a modified version of WHO's Vaccination Acceptance Scale. The data was analyzed using SPSS version 25. One-sample t-test was applied to calculate significant associations, while independent sample t-test was applied to look for gender differences.

**Results:** The total number of participants was 181, out of whom 80 (44%) were male and 101 (55%) female. Mean age was 29 years. One sample t-test showed a high acceptance for COVID-19 vaccine ( $M=5.26$ ,  $SD=\pm 0.80$ ) among the study participants

( $p<0.01$ ). Female participants were found to have relatively less acceptance (mean score= $5.12$ ,  $SD=\pm 0.85$ ) than males (mean score= $5.44$ ,  $SD=\pm 0.60$ ). The difference was statistically significant ( $p<0.05$ ).

**Conclusion:** Overall, the acceptance of COVID-19 vaccine among health care workers is high but specific concerns are present, especially among females. Improving the perception of the vaccine among health care workers by addressing their concerns regarding vaccination efficacy, chances of reinfection and government policies related to the process of immunization is crucial in ensuring that COVID-19 vaccination uptake in the community is enough to achieve successful herd immunity.

### **12. Is 3d Transthoracic Planimetry Still Superior Over 2decho In Rheumatic Mitral Stenosis When Both Area Andhemodynamic Parameters Of Severity Are In Question?**

Dr. Muhammad Asad

**Objectives:** The objective of the study was to compare transthoracic 3D planimetry to 2D planimetry in calculating mitral valve area along with correlation of various echocardiographic parameters of severity of mitral stenosis among these modalities.

**Methodology:** Patients with (RMS) were enrolled. Keeping 2D PHT as reference mitral valve area (MVA) was calculated and it was compared to the results derived by transthoracic 2D and 3D planimetry. Agreement between the 2D and 3D

methods was assessed by measuring the intraclass correlation coefficient (ICC).

**Results:** 51 patients were included. 36 (70.6%) were females; mean age was  $33 \pm 6$  years. Mean gradient was  $14.5 \pm 3.9$  mmhg while mean Pulmonary artery systolic pressure (PASP) was  $31.6 \pm 6$  mmhg. MVA's derived by PHT, 3D planimetry, and 2D were  $1.04 \pm 0.24$ ,  $1.07 \pm 0.24$ ,  $1.21 \pm 0.27$  cm<sup>2</sup> respectively. 3D obtained areas were significantly lower compared to 2D ( $p < 0.001$ ) and insignificantly greater from PHT ( $p = 0.18$ ). 3D demonstrated best agreement with MVAPHT (95% limits of agreement: 0.67 to 0.92; ICC 0.84). MVA 3D planimetry and MVA 2D correlated well with PASP and mean pressure gradient but showed weak correlation with left atrium size.

**Conclusion:** 3D planimetry derived mitral area compared to 2D echocardiography are more inline with PHT calculated area and correlates well to hemodynamic parameters of severity

### 13. White Blood Cell To Platelet Ratio As A Marker Of Adverse Outcome In Organophosphate Poisoning: A Retrospective Cross Sectional Survey

Dr Aimen Malik

**Objective:** To check whether WBC to Platelet ratio can be used to predict the prognosis of OPP patients, and thus make decision of referral easier

**Introduction:** Organophosphorus compounds are pesticides commonly used for agricultural purposes. However, by nature they are poisonous, and

administration either accidental or intentional is a medical emergency requiring prompt evaluation and treatment, and can even lead to death. In addition due to the ease of their availability, they are commonly used for self-harm/suicidal purposes. Many of the patients are initially managed at primary or secondary health care setups before being referred to tertiary care hospitals. The purpose of our study is to find a prognostic marker in the initial blood work of these patients.

**Methods:** A total of 46 patients were included in this retrospective cross-sectional survey conducted at Department of Emergency Medicine, Holy Family Hospital, Rawalpindi. Data was collected from patient files using specific questionnaires. Outcomes were defined in terms of Emergency Department disposition. Data was analysed using SPSS v25. A univariate analysis, followed by Spearman's Correlation was used.

**Results:** Patients with a higher WBC to Platelet ratio had worse outcomes. The Spearman's rho correlation coefficient was calculated and a moderately strong correlation ( $\rho = .458$ ,  $p < .001$ ) was found.

**Conclusion:** WBC to Platelet ratio is a hematological parameter determined to be most strongly correlated with adverse outcomes in Organophosphate Poisoning. It has a statistically significant stronger correlation than the WBC count alone. However, further extensive and focused studies are needed to corroborate these findings and substantiate it as a definite marker of prognostic significance.

**KEYWORDS:** Organophosphate Poisoning; Emergency Medicine; ED; White Blood Cells; Emergency Care; Patient Outcome Assessment

#### **14. A Comparison of Microneedling versus Glycolic Acid Chemical Peel for the Treatment of Acne Scarring**

Dr. Shawana Sharif

**Background:** Acne vulgaris is a common skin disease that frequently results in scarring. Scars secondary to acne can lead to physical disfigurements and a profound psychological impact. Early and effective treatment is the best means to minimize and prevent acne scarring. In patients with darker skin tones, current acne scar treatments pose complications, including dyspigmentation, further scarring, and overall unsatisfactory clinical outcomes.

**Objective:** We sought to compare the efficacy of microneedling versus 35% glycolic acid chemical peels for the treatment of acne scars.

**Methods:** Sixty patients with Fitzpatrick Skin Phototype IV to VI with atrophic acne scars were randomized into two groups: Group A underwent microneedling every two weeks for a total of 12 weeks and Group B received chemical peels every two weeks for a total of 12 weeks. Acne scar treatment efficacy was represented by an improvement greater than one grade from baseline according to the Goodman and Baron Scarring Grading System, measured two weeks after the completion of the last treatment session.

**Results:** Group A demonstrated more improved outcomes in acne scar treatment compared to Group B; 73.33% (n=22) of patients in Group A achieved treatment efficacy while 33.33% (n=10) in Group B did the same. Additionally, 26.67% (n=8) in Group A showed no efficacy after treatment compared to 66.67% (n=20) in Group B.

**Conclusion:** Microneedling provided better treatment outcomes compared to 35% glycolic acid peels for acne scar treatment in our patient population with Fitzpatrick Skin Phototypes IV to VI.

**Keywords:** Microneedling; acne; acne vulgaris; chemical peel; scar.

#### **15. Spectrum of surgical site infection on the surgical floor; Increasing resistance to routine antibiotics**

Dr. Muhammad Iqbal

##### **Introduction**

- Infections occurring up to 30 days after surgery (or up to one year after surgery in patients receiving implants). Commonest nosocomial infections after urinary tract infections. SSI rate varies from 2.5% to 41.9% and accounts for some 20% of healthcare-associated infections. Antimicrobial resistance is an increasing problem besides increased hospital stay and cost burden.

##### **Objective**

- To know the spectrum of surgical site infections in general surgical patients so that specific strategies can be developed to decrease the

morbidity caused by these infections.

### **Materials and Methods**

- This **observational study** was conducted in the surgical department of the DHQ Teaching hospital Rawalpindi for two consecutive years.

### **Inclusion criteria**

All the patients admitted in surgical wards after emergency surgery

**Exclusion criteria;** Elective surgeries

Total **2202** patients included. Informed consent was taken from all the patients or their attendants.

- Specimen of apparent pus and wound discharge was taken under full aseptic measures in a sterile container with a patient profile.
- In the laboratory, these samples were analysed for culture and sensitivity.
- Statistical analysis of data was done using Statistical Package for Social Sciences version 21

### **Results**

- Out of the **total 2202** operated patients, **237(10.76%)** developed surgical site infection (SSI).

### **Conclusion and recommendations**

- Increased incidence of blunt abdominal trauma increases the chances of SSI, so every
- possible efforts should be made to decrease this incidence by better traffic regulations .
- Adequate pre-op resuscitation and peri-operative sterilization can decrease the incidence

of surgical site infections.

- Thorough per operative wound wash decreases the spread of contamination which can lead to decrease incidence of SSI.
- Spread of Staph aureus can be decreased by avoiding direct contact with an infected

wound and wearing of gloves and masks by all healthcare providers.

### **16. Laparoscopic management of hydatidcyst : Our experience**

Dr. Huma Sabir Khan

Background: Hydatid cyst disease is caused by the organism echinococcus. It occurs most commonly in people working at farms with animals. It can present as hydatid disease anywhere in the body. Hydatid cyst which is non resolving and symptomatic needs surgery.

Material and Methods: This study was conducted in BBH from 2018-2022. It is a cross sectional study.

Results: From 2018 to 2022 a total of 38 patients underwent laparoscopic management for hydatid cyst. It involved hydatid cysts of abdomen and chest. One patient had disseminated hydatid cysts of abdomen after previous surgery from periphery. One patient had both abdominal and lung hydatid cysts. None of patient had any recurrence. One patient operated for liver hydatid cyst developed liver abscess which was treated with CT guided drainage.

Conclusion : Hyatid cysts can be treated successfully with laparoscopy. It is safe and feasible.

### **17. Endoscopic and Surgical management of Corrosive Strictures: Our Experience**

Dr. Ruqia Mushtaq,

**Abstract :**Endoscopic dilatation is the recommended primary therapy for chronic corrosive esophageal strictures (ES), and surgery is reserved for failed dilatation. Through this study, we intend to analyze the efficacy and long-term outcomes of both endoscopic and surgical interventions in corrosive ES. A retrospective cohort analysis of patients with chronic corrosive ES, managed with endoscopic or surgical procedures at a tertiary teaching institute in Benazir Bhutto Hospital( RMU) from January 2018 to October 2022 was performed from a prospectively maintained database. The primary outcome measure was the absence of dysphagia following dilatation or surgery.

**Conclusion :**Endoscopic dilatation of corrosive ES is safe and effective therapy and should be the first-line therapy for these patients and surgery should be considered only in patients who have unsuccessful outcome following dilatation therapy.

### **18. Acute perforated duodenal ulcer: Risk factors, Clinical presentation and outcomes of surgical management**

Dr. Naeem Zia

**Introduction :** Duodenal perforation is a common but potentially life threatening emergency encountered on surgical floor. In literature, the first case of a perforated duodenal ulcer was described by Muralto in 1688.<sup>1</sup> After 200 years, in 1894, Dean reported the first successful surgical closure of a perforated duodenal ulcer.<sup>2</sup> In 1929 Cellan-jones repaired perforated duodenal ulcer by the help of omental patch<sup>3</sup> that was later modified by Graham in 1937, that is now considered as a gold standard procedure for perforated duodenal ulcer repair.<sup>4</sup> The first laparoscopic repair for a perforated duodenal ulcer was reported in 1990.<sup>5</sup> Main goals for management of duodenal perforations are resuscitation, treatment of sepsis infection, nutritional support and to restore gastrointestinal tract continuity.<sup>6</sup>

It is caused by ulcer, endoscopic procedure/ERCP, trauma, or iatrogenic.<sup>7</sup> Previously, peptic ulcer disease accounted for majority cases of duodenal perforation, however with advent of proton pump inhibitors (PPIs) and therapy for H pylori eradication it has been reduced significantly.<sup>8</sup> associated risk factors for perforated duodenal ulcer include smoking, NSAID use, steroids/hakemic medications, APD.<sup>9</sup>

In western world, incidence of PDU is stable with even gender distribution and mortality is about 7-10%. In contrast to

west there is prevalence of young male gender with mortality of 20-30% in our setup.<sup>10</sup> Triad of delayed presentation more than 24 hours with grade III shock and serious medical illness are associated with poor outcomes and ensure 100% mortality<sup>11</sup>.

To identify the risk factors and outcome, we reviewed the clinical presentation of patients with duodenal perforation to predict the mortality and morbidity in our setup.

### **19. Operative Outcomes Of Early Laparoscopic Cholecystectomy Vs Delayed Laparoscopic Cholecystectomy**

Dr. Nazan Hassan

**Background:** Laparoscopic cholecystectomy is a gold standard procedure for symptomatic gallstones. The appropriate timing of laparoscopic cholecystectomy, however, is a matter of great controversy and debate. Previously, there was a trend towards delayed laparoscopic cholecystectomy which was considered a safer option. However, in the recent past there has been a paradigm shift towards early laparoscopic cholecystectomy.

**Aim and Objective:** To compare the operative outcomes of early laparoscopic cholecystectomy vs delayed laparoscopic cholecystectomy.

**Methods and Materials:** This randomized controlled trial was conducted in

Department of Surgery, Benazir Bhutto Hospital, Rawalpindi during a period of two years from December 2020 to November 2022. A total of 100 patients fulfilling the inclusion criteria were included in the study. Patients having clinical or biochemical evidence of jaundice or choledocholithiasis, dilated CBD on radiological investigations, empyema gallbladder, acalculus cholecystitis, and ASA IV or more were excluded from the study. The enrolled patients were randomized into two groups: Group A underwent early laparoscopic cholecystectomy within 72 hours of admissions while Group B patients underwent interval cholecystectomy 6-12 weeks after the acute attack. All surgeries were performed by well-trained qualified surgeons and were supervised by consultants.

Outcomes like conversion to open rate, mean operative time, rate of subtotal cholecystectomies, intraoperative complications like CBD injury, length of hospital stay, lost workdays, 30 days morbidity, rate of readmission and re-surgery were noted. Operative findings were graded using the parkland grading scale for cholecystitis 2020.

**Results:** In the study 82% patients were female and 18% were male. Rate of conversion to open cholecystectomy was 9.33% in early LC group and 4.33% in delayed LC group. Rate of subtotal cholecystectomy was 54% in group A and 12% in group B. Mean operative time was 80 mins in group A and 60 mins in group B.

One patient in group A developed biloma which was latter drained under ultrasound guidance. Length of hospital stay, lost workdays, 30 days morbidity, rate of readmission and re-surgery were found to be statistically insignificant.

**Conclusion:** The results show that, unlike the literature available, in our setup early cholecystectomy has a poor outcome as compared to interval cholecystectomy in terms of intraoperative complications as well as the disadvantage of longer operative period.

**Keywords:**Gallbladder,Cholecystectomy, Laparoscopy, Acute cholecystitis.

## **20. TEP for the management of Inguinal Hernias: Our Experience.**

Dr. Hira Saleem

**INTRODUCTION.** Inguinal hernia repair is one of the most frequently performed surgery. Totally extraperitoneal hernia repair is a technically demanding procedure. Indepth anatomical knowledge, training and advanced technical skill is needed for the surgeon to perform this procedure. It requires greater skills of laparoscopic dissection and manipulation as the working space available is limited. It has a long learning curve and must be done only after acquiring experience in basic laparoscopic procedures.

**OBJECTIVE:** The purpose of this review was to analyse the clinical effectiveness and relative efficiency of laparoscopic TEP.Surgical outcomes included postoperative pain, immediate post operative complications like seroma and wound infection, chronic groin pain, and recurrence rate.

**RESULTS:**This study was conducted from January, 2017 to November 2022.87 patients with ages from 18 to 70 years were included in the study by consecutive retrospective sampling. The procedures were performed by experienced surgeons. The primary outcomes were evaluated based on postoperative pain and early complications, recurrence rate and chronic pain. . Clear advantages were observed for the TEP technique in terms of early postoperative pain, and return to normal daily activities. However due to difficult technicalities of the procedure conversion to open repair was observed in one case.

**CONCLUSION:**TEP technique, it is possible to achieve very good perioperative outcomes, low chronic pain and recurrence rates. A higher intraoperative complication rate may be expected with TEP. Although there is definite evidence of longer operative time and learning curve, laparoscopic TEP has added advantages like less postoperative pain, early resumption of normal activities, less chronic groin pain, and low recurrence rate.

## **21. Laparoscopic Bariatric Surgery in a Public Sector Hospital and its outcomes**

Dr. Aurangzeb khan

**Introduction:** After establishing a foothold in the west, the pandemic of obesity now threatens the developing countries like Pakistan, causing serious public health concerns. Obesity has become a global epidemic disease, and bariatric surgery is now being increasingly performed in western countries. Although bariatric surgery has been practiced in Pakistan for more than 10 years now, its use is still only limited to private hospitals as a treatment option for the very few who can afford it. But now bariatric surgeries are being performed in public sector hospital in Rawalpindi.

**Methods:** A total of 25 cases has been performed from January 2020 to November 2022 . Demographics, gender, co-morbidities, preop weight and BMI were recorded. Informed consent had been taken from all the patients. All the equipment and gadgets had been arranged and managed by the hospital and department of surgery unit-II at BBH Rawalpindi. Type of procedure and procedure related complications were recorded. Post-op excess weight loss and resolution of co-morbidities were also recorded.

**Results:** Total 25 cases, 18 underwent sleeve gastrectomy , 7 mini gastric bypass. Their mean body weight and body mass index (BMI) before surgery was 125 kg and 45.6 kg/m<sup>2</sup>.

There were no major perioperative complications. The mean BMI decreased to 28 kg/m<sup>2</sup> after a mean follow-up of 6 months. The percent excess weight loss(%EWL) at 1,3,6 and 12 months postoperatively were 17.8,28,54.2,64.7% respectively.

**Conclusion:** Bariatric surgery leads to significant short-term weight loss along with resolution of comorbidities in obese patients.

## 22. Comparison of outcomes and complications between Single-Stage Laparoscopic and Two-Stage Endo-Laparoscopic approach for management of concurrent gallbladder and bile duct stones.

Dr. Naveed Akhtar Malik

Background:

Gallstone disease is a prevalent pathology with a prevalence of 10-15% among adults. The disease is further complicated when stones get stuck in the common bile duct leading to choledocholithiasis. The ideal management in case of occurrence of a CBD stone along with the presence of stones in gallbladder is still under consideration. It is practiced widely that ERCP must be conducted prior to laparoscopic cholecystectomy. This leads to a two stage process. On the contrary, some surgeons prefer laparoscopic bile duct exploration followed by laparoscopic cholecystectomy. The aim of this study is to compare the success rate in terms of stone removal of single laparoscopic CBD exploration and cholecystectomy and two-stage endoscopic stone removal followed by laparoscopic cholecystectomy.

#### Objective:

1. To compare the efficacy in terms of stone removal in single-staged laparoscopic CBD exploration and cholecystectomy and two-stage endo-laparoscopic stone removal followed by laparoscopic cholecystectomy
2. To compare morbidity in terms of complications (i.e. acute pancreatitis, cholangitis, bile leakage, surgical site infection and other complications)

#### Material and method

This study was a prospective comparative study carried out at Benazir Bhutto Hospital, Rawalpindi. After meeting inclusion and exclusion criteria, 35 patients were allocated to each group. The principal investigator observed the patients and maintained follow-up for 30 days. Data was recorded on structured proforma. All the data entered in SPSS version 23.0 and analyzed.

Results: 35 Patients underwent single staged laparoscopic procedure (LCBDE + LC) and 35 Patients underwent two-staged endo-laparoscopic procedure (ERCP + LC). There was difference in the procedure efficacy between both groups. Group A (LCBDE + LC) was more efficacious in removing stones with all patients (n = 35) resulting in a successful procedure (100%) as compared to Group B (ERCP + LC). 3 patients had an incomplete stone removal out of 35 patients with a success rate of 91.4%. Both groups A and B, no patients suffered bile leakages or post-operative cholangitis. Patients in the ERCP and LC group had a higher rate of post-procedure acute pancreatitis (n= 4) when compared to the LCBDE group (n = 1) with 11.4% and 2.8% respectively ( $p < 0.05$ ). Post-operative surgical-site infection occurred in 3 patients in Group A (8.5%) whereas no

patients in Group B developed surgical site infections (0%).

#### Conclusion

The LCBDE and LC offers improved outcomes and reduced postoperative events when compared to ERCP + LC.

#### Keywords

Gallstones, cholecystectomy, pancreatitis.

### 23. Establishing Surgical Oncology Clinics and Tumor Registry: Our Spectrum

Dr. Rabia Arshad

**INTRODUCTION:** Cancer surgery has not received sufficient attention in low income countries right from early detection to timely intervention. With many competing health priorities and significant financial constraints, surgical services in these settings are given low priority within national health plans and are allocated few resources from domestic accounts. As a result, in most low-income countries access to safe, optimal surgical services for cancer is poor, and large proportions of the population are unable to access even the most basic surgical care. Lack of data on spectrum of diseases and lack of multidisciplinary approach contribute greatly to disadvantage of patient's survival.

**OBJECTIVE:** The aim of this study was to analyze the spectrum and stage of cancer pathologies presenting in public sector hospital and to identify the need of

channeling a regular MDM for optimum and timely treatment of such patients.

**RESULTS:** The data of total 156 patients presenting in outpatient Department of Surgery from January 2020 to July 2022 was analyzed. The mean age of patients was 44 years with male dominance of 57%. Most commonly presenting cancer was breast cancer (29%), followed by 18% of thyroid cancer, 17% colorectal cancer and 14% of hepato-pancreatobiliary cancers. 78.7% of these cancers present at Stage III.

**CONCLUSION:** There is a significant number of treatable cancer patients with adequate chance of cure and survival that present to public sector surgical outpatient. We need to identify the barriers to standard care and outline the multidisciplinary platforms available at different resource and income levels. Our public hospital policy needs redefinition relating to quality, safety, access and economic considerations in the scale-up of surgical cancer services across the country for the QoL and disease free survival of our patients.

#### **24. A comparison of proximal femoral nail antirotation and dynamic hip screwing treatment of Boyd and Griffin type 3 and 4 per trochanteric fractures in terms of mean perioperative blood**

Dr. Rana Adnan

**Objective:** To Compare proximal femoral nail antirotation and dynamic hip screw in

treatment of Boyd and griffin type 3 and 4 per trochanteric fractures in terms of mean perioperative blood loss.

**Materials and Methods:** The study was conducted in Benazir Bhutto Hospital Rawalpindi, Department of Orthopedics from 30. July 2019 to 1' march,2020. It was randomized controlled trial (RCT). Permission was taken from the ethical committee of the hospital. SPSS version 23 was used for data analysis. Tests of significance chi square and t-test were applied. P-value < was taken as statistically significant.

**Results:** The mean postoperative blood loss of DHS and PFNA Groups was  $281.22 \pm 14.01$  ml and  $105.81 \pm 12.63$  ml, respectively. There were n=12 (40%) patients between 50-150 ml postoperative blood loss and n=18 (60%), >150 ml blood loss, in DHS Group. While, in PFNA, there were n=20 (66.7%) patients between 50-150 ml postoperative blood loss and n=10 (33.3%), >150 ml blood loss.

**Conclusion:** Results of our study revealed that Proximal Femoral nail gives better results in intertrochanteric fractures in

terms of amount of blood loss during surgery.

**Keywords:** Intramedullary, trochanteric fractures, dynamic hip screw, proximal

femoral fracture.

## 25. Endoscopic Trans Sphenoidal Excision Of Pituitary Macroadenoma

Prof. Dr. Nadeem Akhtar

**Introduction** :The endoscopic transsphenoidal approach is an efficient minimally invasive procedure for removal of pituitary tumors that can be accomplished through a one-hand or two-hand approach. The one-hand procedure through one nostril is more intuitive for surgeons, but maneuvering the instruments can be restrictive. The two-hand procedure using a one-and-half nostril approach provides more precise manipulation.

**Case Presentation:** We report here a 42-year-old female, who presented with complain of headache, blurring of vision in temporal fields along with acromegalic features. Her Growth hormone and IGF-1 levels were raised. MRI showed pituitary macroadenoma. Endoscopic trans sphenoidal resection of pituitary adenoma done.

**Conclusion.** endoscopic endonasal transsphenoidal surgery with two-

hand/one-and-half nostril approach is an effective and safe procedure for removal of large pituitary tumors.

**Key Words:** acromegaly, trans sphenoidal, pituitary macroadenoma

## 26. Efficacy of Intra-articular Methylprednisolone Versus Ketorolac in Shoulder Pathologies

Dr. Junaaid Khan

**OBJECTIVE:** To compare the efficacy of intra-articular Methylprednisolone versus Ketorolac in shoulder pathologies in terms of improvement in range of motion (ROM).

**METHODS:** This randomized controlled trial was carried out between 10<sup>th</sup> April 2019 to 10<sup>th</sup> April 2020 at the Department of Orthopedics, Benazir Bhutto Hospital, Rawalpindi, Pakistan. The research involved patients aged 20 to 65 years of both sexes who were diagnosed with a specific shoulder pathology and had shoulder pain for at least three months. Patients were randomly distributed into two groups: A and B. Group A patients were infiltrated with Methylprednisolone Acetate injection while those in group B were injected Ketorolac. The ROM of the involved joint was determined using goniometry before and four weeks after injection. The collected data were then statistically analyzed using SPSS.

**RESULTS:** A total of 60 patients finally selected, 38 (63.3%) were male and 22 (36.7%) were female. The mean age was

44.6±8.3 years in group A while it was 45.2±7.5 years in group B. Thirty three (55 %) patients had adhesive capsulitis, 20 (33.3 %) had rotator cuff syndrome and 7 (11.7 %) had impingement syndrome. Flexion, extension, abduction, internal, and exterior rotation all showed substantial increases in ROM following therapy ( $p<0.001$ ). The mean increase in flexion, extension, abduction, internal or external rotation between the two groups did not differ considerably ( $p>0.05$ ).

**CONCLUSION:** Both Methylprednisolone and Ketorolac show comparable efficacy when administered intra-articularly in shoulder problems, as measured by shoulder ROM improvement.

**KEYWORDS:** Adhesive capsulitis, Impingement syndrome, Ketorolac, Methylprednisolone, Rotator cuff syndrome.

## 27. Can Work Load Indicators Guide The Policy Makers? An Inter Hospital Study Of Three Orthopedic Units.

Dr. Obaid ur Rahman

**Objective:** To compare the human resources and workload of orthopedic units of the three hospitals working under Rawalpindi Medical University [RMU] and analyze possibilities of optimization of Human Resource Planning by applying Workload Indicators of Staffing Needs [WISN].

**Methods** A comparative quantitative study was undertaken to compare the human resources and workload contribution of three orthopedic units using annual official reports for the year 2021. The human resource data for doctors included the number of specialists, residents and house officers working in each department. Their workload data looked at the total number of surgeries and admissions, patients seen in emergencies and outpatient departments, and teaching load in the year 2021. According to WHO criterion The Standard Work Load, Work in Facility, Staffing Requirement, Workload Indicators of Staffing Requirements' WISN were calculated for each orthopedic unit.

**Results:** Benazir Bhutto hospital [BBH] with 8 specialists (44.5% of combined RMU specialist strength) is managing 59% of the total workload. District Head Quarter hospital [DHQH] with 2 specialists (11% of total specialists) is managing 28% of the total workload. Holy family hospital [HFH] manned with 8 specialists (44.5% of total specialists) is managing 13% of the total workload.

*Workload Indicator of Staffing Needs (WISN)* of Orthopedics Unit of BBH was calculated to be 0.99 which shows the number of orthopedic specialists is according to the work load. WISN of DHQH was 0.65 which shows DHQH orthopedic staff is 35% short of the workload and adding at least one specialist will balance the workload. WISN of HFH was 3.64 which

shows that out of 8 specialists working there, 5 are surplus.

Key word: Workload, Staffing Needs, WISN.

## 28. One Year Mortality in Elderly Patients with Fracture Proximal Femur Managed Surgically in District Headquarter Hospital Rawalpindi

Dr. Saad Riaz

**Objective:** To determine one year mortality rate in elderly patients who were operated for fracture proximal femur in District Headquarter Hospital Rawalpindi.

**Methods:** This descriptive study was conducted in Orthopaedic Department, District Headquarter Hospital Rawalpindi from 3rd January 2017 to 25th December 2019. All patients with proximal femur fracture (neck of femur, per trochanteric and sub trochanteric fractures) fulfilling the inclusion criteria and who were operated were included in our study. Post operatively all these patients were followed up at regular intervals up to one year to document mortality. Chi square test for independence was used to calculate P values of important variables and P value of <0.05 was considered statistically significant.

1 patients with mean age was  $71.1 \pm 10.0$  years were included in our study. There were 90(55.9%) males and 71(44%) females. Majority (62.1%, n=100) of fractures were pertrochanteric followed by neck of femur (34.8%, n=56) and subtrochanteric fractures (3.1%, n=5). Dynamic Hip screw (DHS) was used to fix fractures in 105(65.2%), Austin Moore Prosthesis (AMP) in 31(19.3%), Total Hip Replacement (THR) in 17(10.6%) and Dynamic Condylar Screw (DCS) in 3(1.9%) patients. At one year the overall mortality rate was 20.5% (n=33). Patients of 80 years and above had significantly higher mortality (34.8%, n=15) rate than others ( $P=0.006337$ ). The mortality was also significantly greater in females (28.2%, n=20) than male patients (14.4%, n=13) with P value of 0.032201. Patients operated for neck of femur fractures had significantly higher mortality rate (30.4%, n=17) than those operated for pertrochanteric fractures (16%, n=16) with P value of 0.02361.

**Conclusion:** Elderly female patients age 80 years and above operated for neck of femur fractures exhibited a higher mortality rate at one year follow up than others.

**Key words:** Death rate, Elderly patients, Fatal outcome, Fe

## 29. Outcome of Ender's nailing in pediatric patient with Shaft of Femur Fracture in a Tertiary Care Hospital

Dr. Rahman Raza and Akhtar

**Introduction:** The use of spica casting in children with the shaft of femur fractures is controversial. Presently, operative treatment is the main standard for the management of shaft of femur fractures in children. The advantages of Ender's nail are closed insertion of the nail with the preservation of fracture hematoma, minimal chances of infection and endosteal blood supply is preserved because no reaming is required.

**Objective:** To determine the treatment outcome of Ender's nailing in the pediatric shaft of femur fractures in terms of limb length discrepancy, function, and union.

**Materials and Methods:** This descriptive study was conducted at Orthopaedic Department, Benazir Bhutto Hospital,

Rawalpindi Medical University, Rawalpindi from January 2017 to December 2019. We enrolled 95 children 6-12 years of age by using a non-probability consecutive sampling technique with femoral shaft fracture. The exclusion criteria include children with pathological fractures, malignancy, and skeletal dysplasia. Time of surgery, implant failure, infection, union, limb length discrepancy, and functional outcome were recorded. Functional outcome and union were determined by using Flynn criteria and radiographs while the surgery time, infection, limb length discrepancy, and implant failure were determined clinically.

**Results:** There were 59 (62.1%) male and 36 (37.89%) female children. The mean age was  $6.93 \pm 4.12$  years. The mean surgery duration was  $30 \pm 8.5$  minutes. There were 06 (6.31%) superficial and no patients with deep infection. No implant failure in our study. The time duration from radiological & clinical union to full weight bearing was 7.9 weeks (5-12 weeks). On Flynn criteria, 67 (70.52%) children had excellent and 28 (29.47%) had a satisfactory functional outcomes. In 85 (89.47%) children, there was no limb length discrepancy but 10 (10.5%) children had limb length discrepancy with a mean of  $5.45 \pm 1.23$  mm.

**Conclusion:** Ender's nailing is an excellent treatment option for the pediatric shaft of femur fractures in terms of functional outcome and union with low chances of

infection, limb length discrepancy, and implant failure.

**Keywords:** Ender's nailing, pediatric femoral shaft fracture, union, functional outcome, infection, implant failure, limb length discrepancy.

### 30. Accuracy of clinical methods in patients undergoing knee arthroscopy

Dr. Haider

**Introduction:** We have various invasive and non-invasive methods to diagnose knee injuries. Non-invasive methods are always preferred if they yield the same diagnostic value because of the nature of their procedure.

**Aims and Objectives:** The objective of this study is to compare the sensitivity of clinical methods to arthroscopic findings, considering arthroscopy to be 100% sensitive.

**Materials and Method:** A retrospective cross-sectional study was conducted in which 54 patients with trauma to knee joint participated. The participants were first diagnosed using clinical signs and methods who were to undergo arthroscopy later. The diagnosis was then confirmed via arthroscopy. The data was recorded and analyzed in SPSS version 26.

**Results:** Out of the total 54 participants, 85.2% were males and the 14.8% were females. The mean age of the participants was 28.72. Sensitivities of Joint Line Tenderness and McMurray test for diagnosis of medial meniscus injuries are 60% and 96.0% respectively, and of lateral meniscus are 84.2% and 89.5% respectively. Sensitivities of anterior drawer and lachman test for diagnosis of anterior cruciate ligament tear are 51.9% and 74.1% respectively. Sensitivity of posterior drawer test for posterior cruciate ligament tear detection is 50%.

**Conclusion:** The sensitivities of different clinical tests in diagnosis vary e.g. McMurray test can be accurately used to diagnose medial meniscus tears but posterior drawer test has a sensitivity of only 60% in diagnosing posterior cruciate ligament tear. The clinical examination remains an accurate and acceptable method to diagnose knee injuries.

**Keywords:** Sensitivity, Knee injury, Clinical diagnosis, Arthroscopy

### 31. Urogynaecological Clinic, A Single Centre Experience

Dr Ahmed Sajjad.

**INTRODUCTION:** Urogynecology clinic is a combined effort of the department of urology and the department of Gynecology & Obstetrics, Rawalpindi Medical College. Its mission is to diagnose and treat women

who have pelvic floor pathologies, which include urinary and fecal incontinence, pelvic organs prolapse and urogynecological fistulas. The purpose of the study is to know the number of patients, diseases in them, stratify different treatment options and evaluate outcome of the treatment in them.

**MATERIALS AND METHODS:** All females attending the Urogynecology clinics were included in the study. The patient's details were noted in a Performa that recorded a detailed history, clinical examination and relevant investigations. The females needing surgical intervention, were admitted in the department of urology, Benazir Bhutto hospital Rawalpindi. EUA (examination under anesthesia) and cystoscopy were done. Depending upon cystoscopic findings, further management was planned.

**RESULTS:** Total 179 patients visited the clinic from June 2021 to November 2022. The age of the patients ranged from 03 – 74 (mean 42.23) years. 147 patients (82.12%) had some form of urinary incontinence. Mixed urinary incontinence (stress and urge), was diagnosed in 24 patients (16.3%), urge incontinence in 68 patients (46.2%) and stress incontinence in 22 patients (14.9%), Neurogenic incontinence was noted in 6 patients (4.06%). Urogynecological fistulas were present in 27 patients (18.36%). 17 patients (62.9%) had Vesicovaginal fistula, 4 patients (14.8%) had vesicouterine fistula, 4 patients (14.8%) had ureterovaginal fistula,

1 patient (3.7%) had rectovesical and Vesicovaginal fistula while 1 patient (3.7%) had rectovaginal fistula. 30 patients (16.7%) had recurrent urinary retention. Urethral stenosis was seen in 16 patients (53.3%), mucosal tag was found in 1 (3.33%), mucus cyst was found in 1 patient (3.33%), urethral trauma in 1 patient (3.33%) and idiopathic retention in 11 patients (36.6%). 1 patient (0.55%) presented with anuria because of bilateral ureteric ligation. The treatment for urge incontinence included behavioral modifications, kegel exercises and antimuscrinic agents. Stress incontinence was treated by tension free transvaginal tape (TVT) in 4 patients (18.18%). While 6 patients (4.08%) with Neurogenic incontinence were treated by CIC. 12 patients with VVF (44.4%) were treated by transvaginal repair, while 8 patients (29.62%) were treated by transabdominal repair. Among 4 patients (14.8%) of vesicouterine fistula, all 4 patient were treated by transabdominal repair. 4 patients (14.8%) of uretrovaginal fistula were treated by ureteric reimplantation by transabdominal approach. 1 patient (0.55%) with bilateral ureteric ligation was treated by bilateral ureteric reimplantation. 1 patient (3.7%) with rectovesical and Vesicovaginal fistula lost to follow. 1 Patient (3.7%) with rectovaginal fistula was reffered to general surgery for covering colostomy. 30 patients (16.7%) were of recurrent urinary retention. 11 patients (36.6%) were treated by urethral Foley's

catheterization and subsequent alpha blocker. 1 pateint (3.33%) was treated by mucosal tag surgery, 1 patient (3.33%) by mucus cyst removal and 16 patient (53.3%) by urethral dilatation.

**CONCLUSION:** Urogynecological diseases, particularly urinary incontinence is one of the major health problems in females. It affects their socio- economic, sexual, and domestic lives adversely. There is a need to establish such clinics to help the women to regain good quality of life and psychological satisfaction.

### **32. Early initiation of breast feeding and its associated factors among women delivered in tertiary care hospital**

Dr Amara Arooj

**Introduction:** Although role of exclusive breastfeeding, as best method of infant feeding during the first 6 months of life. The significance of early initiation of breast feeding (EIBF) has recently been recognized. EIBF is defined as initiation of breast feeding with in first hour of birth. EIBF significantly reduces the risk of neonatal morbidity & mortality. To determine the proportion of early initiation of breast feeding among new mothers at discharge from a tertiary care hospital and factors affecting it.

**Methods:** This study was conducted at Gynaecology unit 1, Holy Family Hospital (HFH), Rawalpindi during 3 months period (July to August, 2022). In this cross sectional study data was collected from 200 postnatal patients and 30 health care professionals (doctors, nurses and midwives) through a pre-designed Proforma. Data was analyzed by SPSS version 22. Chi-square test was used to evaluate the association of the independent variables with EIBF.

**Results:** EIBF was found in 22% of infant-mother pairs. Majority of mothers-infant pairs (53.7 %) started early breast feeding (EBF) i.e. Breast feeding (BF\_ between 2 to 24 hours after delivery. Majority of infants were given a drink, other than breast milk, within 24 after delivery. Counseling or assistance for EIBF feeding was provided by healthcare workers to only few mothers in antenatal period (2.5%). Most common reason for delayed initiation was neonatal admissions 25%, followed by inadequate milk production 21.4%.

**Conclusion:** Early initiation of breast feeding practices can be increased by antenatal counseling and training of

mothers. There is a need to make more aggressive efforts for promotion of EIBF.

### **33. Stop the storm- Is experienced multidisciplinary protocol-based team approach help in reducing morbidity and mortality in Placenta accrete spectrum:**

**Dr. Humera Noreen**

**Background.** Placenta accreta spectrum (PAS) disorders have emerged as one of the major iatrogenic public health challenges of the 21st century. Its incidence increases with the number of prior cesarean sections. PAS has been associated with increased maternal morbidity (24% to 67%) and includes massive hemorrhage (average estimated blood loss ranging from 2000 mL to 4000 mL) with associated risks of large volume blood transfusion, coagulopathy, visceral injury, infection, thromboembolism, and need for reoperation.<sup>4,5</sup> Rates of maternal death are increased for women with placenta accreta spectrum range from 0.05% to as high as 7%, influenced by factors including location and resources, antenatal diagnosis, and dedicated multidisciplinary management by an experienced team.<sup>6,7</sup>

**Objective :** To compare the impact of standardized, multidisciplinary protocol with conventional approach in patients with Placenta Accreta Spectrum (PAS) in terms of maternal morbidity and mortality at tertiary care hospital.

**Methodology:** It was a clinical audit of patients operated for placenta previa conducted during the period of one year in

the department of obstetrics and gynaecology Holy Family Hospital. It was observed that complications and need for ICU was increasing in patients with PAS. So, the data was collected retrospectively, analysed and modifications were planned in conventional approach of PAS. This new technique called standardised protocol. Maternal morbidity and mortality was compared in both groups. The main modifications were maximization of Hb till 12-14 gm/dl with help of high protein diet, injectable iron and blood. One to one care. Availability of DJ stents, tranexamic acid, 3 way Foleys. Preoperative consultations were done with surgical, urology team, senior anesthetist and blood bank was kept on board. Pre op counseling of relatives regarding needs of hysterectomy and Icu care and need for mechanical ventilation. Surgical approach involved a midline skin incision, classical incision on uterus, a rapid single-layer uterine closure with no placental removal attempt, bilateral internal iliac ligation, and liberal choice of subtotal hysterectomy followed by packing of peritoneal cavity with 10 abdominal sponges and re-laparotomy for removal of packs after 24 hours.

**Results:** Total maternities in one year were 10. Preoperative consultations were done with surgical, urology team, senior anesthetist and blood bank was kept on board. Pre op counseling of relatives regarding needs of hysterectomy and Icu care and need for mechanical ventilation, 638 and total cesarean sections 3892 (36%)

Total patients presented with placenta previa were 142. The record was missing in 38 patients which were excluded. In the remaining 104 patients 42 patients had invasion. 24 were operated with conventional approach and data of 18 was

collected after implementation of standardised protocol. The mean age and gestation at time of admission was comparable. More than half of patients were P2 and above. Majority of patients asymptomatic at time of admission. 1/3<sup>rd</sup> of patients have previous 2 caesarean sections. Interestingly more than half of patients operated in private hospitals. Per operative blood transfusions were more in conventional group but no .of transfusions per operative were double in conventional group. Per op and post op complications were more in conventional group as well as ICU admissions and mechanical ventilation. Length of surgery more in standardised group.

**Conclusion:** Maximization of pre-op preparation esp Hb is helpful in avoiding massive transfusions in per op and post-op time period. A standardized approach with multi-disciplinary team of consultant level is key to success in reducing the maternal morbidity and mortality.

#### 34. Audit of Cesarean sections done due to Category II cardiotocography (CTG) at a tertiary care hospital in Pakistan

Dr. Humaira Bilqis

**Background** Electronic fetal monitoring by cardiotocography is widely used to monitor fetal heart rate (FHR) during labor. Its interpretation is confusing at times. ACOG categorizes CTG traces into categories I-III. Persistent Category II is a usual indication for C-sections however neonatal outcome in Category II CTG patients is

indeterminate, thus making it a potential area of research. The objectives of our study were to analyze the quality of interpretation of CTG traces, and to evaluate association of risk factors and different features of Cat-II CTG with neonatal outcome.

**Methodology:** An audit of 200 C-sections, done due to Cat-II CTG, was done from hospital records. All the CTG traces were reviewed in detail. Risk factors, intrauterine resuscitative measures and neonatal outcomes were noted. Data were analyzed using SPSS version 21.

**Results:** We studied 397 CTGs of 200 patients. Only 204 (51%) were categorized; 173 correctly (85%) and 27 incorrectly. Only in 40 (20%), decision of C-section was done after persistent 3<sup>rd</sup> Cat-II CTG. There were 46/200 (23%) NICU admissions with two neonatal deaths. Absent/minimal variability was the most significant feature of CTG trace associated with NICU admissions. The commonest risk factors found were hypertension, anemia and induced labour.

**Conclusion:** A large number of women undergo C-sections without proper

categorization of CTG traces and/or following proper protocol of intrauterine resuscitation. Interventions like CTG workshops and proper SOPs for decision of C-section in Cat-II are mandatory to be followed to prevent unnecessary C-sections.

.

### **35. Estimation of prevalence, awareness and feelings of middle aged and elderly ladies regarding Female Sex Disorders-a pilot study**

Dr. Khola Noreen

#### **Introduction**

- Human sexual function is important for propagation of race and quality of life. Female Sex Disorders (FSD) usually develop in middle aged and elderly women and include: disturbances of sexual desire, genital arousal and orgasm and painful/or difficult intercourse. low estrogen result in vaginal smooth muscle degeneration, thinning of vaginal mucosa and decrease in secretions, which result into low sex drive, vaginal dryness and dyspareunia.

So far we could not find any study in Pakistan to explore or manage FSD. It was usually thought of a psychological problem, but in fact it is more of an **age-related organic illness**.

#### **Objectives**

In our culture, elderly ladies generally hesitate to express their sex related issues, although they do suffer.

Therefore, present study meant to estimate prevalence, awareness and feelings of middle-aged/old ladies regarding FSD in our community.

### Methods

Middle-aged/elderly ladies reporting for any gynecological or medical problem to **District Head Quarter Hospital**, a teaching hospital of RMU, who agreed to discuss their sex problem were randomly included in the study. Besides demographic details, data to determine frequency, knowledge and attitude was collected in a structured questionnaire, including Yes/No questions and Visual Analog Scales (VAS)..

### Results

- Thirty women, aged 40 to 62 years (mean  $46.17 \pm 6.25$ ) participated in the pilot study. Results of Yes/No questions and VAS for frequency, knowledge and attitude regarding FSD are given in Overall, frequency of symptoms of FSD was 73% and were of moderate degree. Cumulative mean of VAS of various FSD symptoms was  $4.12 \pm 2.41$ ). Patients usually were aware of symptoms that appear in elderly ladies pertaining to sex (cumulative Y=60. 8%). In beginning they were quite hesitant to talk about sex (Y=53%, mean VAS= $5.8 \pm 3.5$ ). However, by the end of conversation they were very satisfied (Y=73%, mean VAS  $7.2 \pm 2.5$ ).

### Conclusions

- FSD exists in our community in a significant number of middle aged/elderly women.

- They were mostly aware of FSD symptoms in old age. Most of them had knowledge of FSD symptoms.

They were hesitant to begin with but felt very satisfied by the end of conversation

### 36. Where we stand currently in the reformed undergraduate curriculum : a report on Student's perception.

Dr Sadia Waheed

Background: An effective educational environment is crucial for the success of any educational programme. Periodic programme evaluation is fundamental to ensure the attainment of targets especially when reforms are introduced. The evaluation remains incomplete without evaluating the educational environment of the institution. Rawalpindi Medical University introduced a reformed integrated undergraduate curriculum 5 years back. The educational environment has never been evaluated during this period. This study aims to measure the perception of undergraduate medical students of RMU about their educational environment using the DREEM instrument and to identify the challenges and suggest changes in the curriculum to address these challenges.

Methodology: The study was conducted at RMU from 20-11-2022 to 30-11-2022. It was a cross-sectional study comprising a survey about the perception of undergraduate medical students (in the final year session 2022-23) about their educational environment. An online DREEM

Questionnaire was offered to all final-year MBBS students. Data was collected through questionnaire shared as a Google form. Results were analyzed using Google Sheets. The mean score of each item was calculated. The total DREEM score was calculated by adding these mean values.

**Results:** 101 students responded to the shared form. The total DREEM score was 119 which is interpreted as a score that is more positive than negative. Items 3,4,9,25,27,28 and 42 scored less than 2 which needs immediate attention. Only Items, 2 & 15 scored > 3 which is interpreted as excellent scores. [Table 1 & 2].

**Conclusion:** The results of the study have revealed that overall the educational environment of RMU is perceived by the students to be more positive. They affirmed that teachers are knowledgeable. However, the results highlight to pay immediate attention to develop a fully operational student support system. The curriculum needs amendment to ensure maximum student participation in all learning activities. Teachers' training for providing constructive feedback to students and to reflect on their attitude towards students are other major concerns to be addressed at priority.

### **37. Assessment Of Clinical Spectrum Of Renal Diseases In Children – A Descriptive Study At Benazir Bhutto Hospital Rawalpindi**

Dr Maria Shamsher

**Introduction:** Childhood kidney diseases are a frequent presentation. Most of the affected pediatric populations are from under developed and developing countries. Noting the epidemiology of childhood renal diseases is very important as it helps in health planning, allows for adequate resource allocation and enables adequate renal services provision. This study aimed to determine the etiological spectrum of renal disease in pediatric patients.

**Methodology:** A descriptive study was conducted in Benazir Bhutto Hospital, Rawalpindi over a period of 6 months. Ethical clearance was taken from institutional review board and written informed consent was administered before enrollment of subject per study criteria. Total 100 children of both genders, aged up to 12 years with the diagnosis of any renal disease condition were included in the study. Patients having other comorbidities like chronic liver disease and heart diseases were excluded. The study information was age, sex, detailed history and physical examination and details of laboratory investigations. Statistical analysis was conducted in SPSS version 20.0.

**Results:** Mean age of patients was 2.1 years. Most patients had fever, edema, burning micturation and high blood pressure. In two third children RFTs were deranged and 19.0% had positive urinary culture reports. The common kidney diseases were UTI (42.0%), nephrotic syndrome (29.0%), acute kidney injury/disease (19.0%), and chronic kidney disease (6.0%).

**Conclusion:** UTIs and nephrotic syndrome along with acute kidney injury were main kidney conditions. Females were more likely to have UTIs whereas nephrotic syndrome was common in male children.

**Keywords;** Epidemiology, Kidney diseases, children, presentation

### **38. Maternal Serum Ferritin Levels and its effect on Cord Blood Hemoglobin in patients with Gestational Diabetes Mellitus**

Dr. Sabeen

**Background :** Gestational diabetes mellitus (GDM) is a common medical complication of pregnancy that can have negative impacts on maternal and neonatal outcomes. Literature shows that elevated serum maternal ferritin levels may cause dysregulation in glucose metabolism in GDM. This study aims to determine the association between serum ferritin, iron and hemoglobin levels in GDM patients at the time of delivery as well as cord hemoglobin and iron levels in newborns.

**Methods :** In this case-control study, a total of 100 patients were included i.e., 50 cases (GDM) and 50 controls (non-GDM) having aged-matched individuals of normal pregnancy. The hemoglobin, iron and serum ferritin, and hsCRP levels of the mother were determined using maternal blood. A cord blood sample was taken to determine neonatal iron and hemoglobin levels.

**Results :** The mean age of the study participants was  $29.2 \pm 5.6$  years. The ferritin levels of GDM mothers ( $42.3 \pm 6.7$ ) were significantly higher than non-GDM patients ( $34.4 \pm 3.8$ ) with  $p < 0.001$ . Similarly, Cord hemoglobin levels of

newborns of GDM mothers were significantly higher than newborns of non-GDM patients ( $p < 0.01$ ). In GDM mothers, maternal ferritin levels were inversely correlated to cord hemoglobin levels ( $r = -0.29$ ,  $p = 0.004$ ).

**Conclusions :** Elevated maternal serum ferritin levels are linked to increased oxidative stress and effects fetal intrauterine and post-partum health. This oxidative stress might affect placental iron transfer and fetal hemoglobin synthesis.

### **39. Efficacy of Bifidobacterium Infantis versus Bifidobacterium Bifidum Probiotic in the Prevention of Necrotizing Enterocolitis in Preterm Neonates**

Dr. Asad Shabbir

**Background:** To compare the efficacy of Bifidobacterium Infantis with Bifidobacterium Bifidum in terms of frequency of necrotizing enterocolitis in preterm neonates.

**Methods:** In this comparative cross sectional study 652 preterm Neonates with gestational age of less than 37 weeks of both genders, were included. They were divided in two groups, one group treated with Bifidobacterium Bifidum and other with Bifidobacterium Infantis. Both groups were managed and monitored for the development of clinical evidence of necrotizing enterocolitis during hospital stay.

Results: Comparison of efficacy in both the groups showed that 92.94 % (n=303) in Bifidobacterium Infantis Group and 96.63 % (n=315) in Bifidobacterium Bifidum Group were treated effectively, p value was calculated as 0.03 showing a significant difference.

Conclusion: Efficacy of Bifidobacterium Bifidum is significantly higher when compared with Bifidobacterium Infantis in terms of frequency of necrotizing enterocolitis in preterm neonates.

Key Words: Preterm neonates, Bifidobacterium Infantis, Bifidobacterium Bifidum

#### 40. A Descriptive Study of Vascular Formina in Adult Human Femur

Dr Arsalan Manzoor Mughal

**Background:** Femur is the longest bone involved in weight bearing supplied by profunda femoris artery. Blood supply of bones is important in various surgical interventions such as microvascular bone grafts etc. Blood supply to the bone occurs via vascular & nutrient foramina through nutrient arteries. This research was conducted to determine the variations in number and location of nutrient and epiphyseal vascular foramina of the femur in the Pakistani population.

**Method:** This descriptive cross-sectional study was conducted from April -June '2022 after getting ethical approval.

Data collection tool: 24-gauge hypodermic needles & measuring tapes.

Data collection and Analysis: SPSS & Excel  
Inclusion & exclusion criteria: Anatomically sound bones were included from bone

bank of RMU; pathological, deformed bones were excluded

**Results:** Out of 80 bones 66.6% had single nutrient foramina, whereas 31.3% had two on the shaft. 82.05% of foramina were type II, 16.67% were type I and 1.26% were type III. Only 2.5% had no foramina. Most nutrient foramina were located on the medial lips of linea aspera or on medial surface. The nutrient foramina distance from the proximal end, mean foramina index and mean number of epiphyseal vascular foramen were  $18.65 \pm 5.45$  cm,  $42.66 \pm 12.18$  and  $16 \pm 10$  respectively with no significant difference bilaterally.

**Conclusion:** Nutrient foramen in femur are mostly located on the middle third of the shaft on the medial lip of the Linea aspera bilaterally, or on the medial surface; however, variations in their location have been found. The mean epiphyseal vascular foramen ranged from 6 to 26.

**MeSH Keywords:** Epiphyses, Diaphysis, Femur, long bones, Hip joint, Arteries, Pathology, Research, osteogenesis, Population

#### 41. Exploring Cyberchondria among Medical Students Doing Clinical Rotations in PNS Shifa Hospital, Karachi; A Cross Sectional Descriptive Study

Dr. Sidra Hamid

**Objectives:**

1. To study the phenomenon of cyberchondria and related worries about health among doctors without any diagnosed medical condition
2. To establish the relationship between cyberchondria and gender, frequency of accessing health related information and degree of worry about health.

**Methodology:** A cross-sectional study was conducted from April 2022 to July 2022, at PNS Shifa Hospital Karachi, Pakistan and comprised of 169 medical students of Bahria Medical and Dental College with access to internet and means of use, and with no current diagnosed medical condition using purposive sampling. The self-reporting Cyberchondria Severity Scale-Shortened Form was used data-collection along with a demographic sheet. Data was analysed using SPSS v 28. Chi Square test was employed.

**Results:** A total of 33.1% subjects had low levels of cyberchondria while 44.40% subjects had moderate levels of cyberchondria and 22.50% subjects experienced a higher level of cyberchondria. 44.4% identified 'easy to access' as the reason to use internet for seeking health-related information; and 45% reported that they "weekly" search health related information. Female students were found to have higher levels of cyberchondria as compared to males ( $p=0.04$ ). The relation between degree of health and frequency of accessing health related information was found to be significant ( $p<0.05$ ).

**Conclusions:** Cyberchondria is related to distress, excessiveness, compulsion and reassurance behaviours. It causes damage to mental health, physical health and social

life of patients. The only way to counter is to manage and regulate usage of internet as a health seeking medium.

#### **Key Words:**

Cyberchondria, Worry, Medical condition, Doctors.

#### **42. A comparative study to evaluate effects on HCV-RNA-PCR by current oral anti-viral therapy with Sofosbuvir and Daclatasvir in Hepatitis C patients with and without Diabetes Mellitus in Pakistan**

Kashif Rauf

#### **Objective of Study**

- To compare the effects of antiviral therapy such as sofosbuvir and daclatasvir in HCV patients who were diagnosed by HCV-RNA PCR without Diabetes Mellitus.

#### **Methodology**

- Methodology: In this cross-sectional analysis total of 100 Hepatitis c infected patients selected, Sofosbuvir plus Daclatasvir treatment was given for 03 months period.
- Different parameters were recorded such as Total Bilirubin, Direct Bilirubin, Indirect Bilirubin, Hb levels, Serum ALT levels, and Serum ALP level.

The statistical relation of the mentioned variables was analyzed through SPSS version 15

#### **Results**

- Out of a total of 100 patients, 47% (47) were males, 53% (53) were females, 44% (44) patients had a

history of prior interferon therapy, 23% (23) patients were having low hemoglobin levels before starting treatment.

- Both groups completed oral antiviral treatment for 12 weeks and resulting data showed the equality of treatment on group B and group A as no decrease in hemoglobin ( $p=0.799$ ), ALT normalization ( $p=1.000$ ), and no rise in serum bilirubin ( $p=0.817$ ) during 1st month of treatment was noted in both groups while the SVR noted of both group also showed no significant difference to each other i.e. 92% & 94% ( $p=0.696$ ).

#### Conclusion

This study concluded that Sofosbuvir/ Daclatasvir tablets oral course of antiviral therapy against hepatitis C infected patients for 12 weeks showed excellent results, beneficial for the patients suffering from diabetes mellitus along with hepatitis C infection as compared with antiviral therapy for hepatitis C infected patients without diabetes

Keywords Deviated nasal septum, Nasal septum corrective surgery, Sub-mucous resection, Septoplasty

### **43. Epidemiologic Profile of Thyroid Disorders in a Tertiary Care Hospital, a Five Years Analysis**

Asma Nafisa<sup>1</sup>

**Background:** Thyroid disorders are commonly encountered endocrine ailments in clinical practice.

**Objective:** To determine the trends and frequency of thyroid disorders in patients

presented for thyroid dysfunction at the department of Pathology Benazir Bhutto hospital Rawalpindi

**Study Design:** Cross-sectional retrospective study.

**Materials and Methods:** Patients who underwent thyroid function tests were enrolled in the study Thyroid function tests were performed on a fully automated Chemistry Analyzer. Graph Pad Prism version 7 and SPSS version 25 were used for statistical analysis of the data.

**Results:** Out of 2856 patients, 81.9% were females and 18.1% were males. The mean age of the participants was  $38.12 \pm 14.51$  years and the median was 35(13-96). Overall, 1951 (68.3%) of the subjects were euthyroid, 343(12.0%) had subclinical hyperthyroidism, 200 (7.0%) had subclinical hypothyroidism, 192(6.7%) had overt hyperthyroidism and 168 (5.9%) had overt hypothyroidism. Females have a significantly high percentage of thyroid disorders as compared to males( $\chi^2 =0.976$   $p=0.027$ ). The major age group 798(27.9 %) tested for thyroid dysfunction suspicion was 24 to 33 years followed by 34-43 (22.9%).

**Conclusions:** The thyroid dysfunction prevalence was higher in females than males. An upward trend in the frequency of thyroid dysfunction was observed with increasing age. Subclinical hyperthyroidism was the commonest abnormality observed. A steep rise in subclinical hyperthyroidism may be attributed to the high intake of iodized salt.

Keywords: Epidemiology, Thyroid dysfunction, TSH, T3, T4, iodized salt, Pakistan

#### **44. Roaming Land of Unknown: Making Sense of Medical Learning in a Traditional, Pre-clinical Curriculum**

Dr. Sidra Hamid

**Background:** During pre-clinical years of medical learning, students learn pathophysiology, general management and treatment of specific diseases. However, they don't receive hands-on training to apply that knowledge.

Early Clinical Exposure (ECE) would help increase interest of students in Basic Education of preclinical years and relieve their stress pertaining to clinical exposure.

Rationale:

The study assesses the importance of ECE in improving medical learning.

**Objective:** To assess views of medical students on making early clinical exposure (ECE) a part of integrated modular curriculum to enhance integration of basic and applied medical knowledge.

**Methodology:** From May to September 2021, this cross-sectional study was done among 300 Rawalpindi Medical University 3rd, 4th, and 5th year MBBS students. The data were collected using a selfstructured

questionnaire. SPSS 22 was used for data analysis. We used the Chi square test, mean, and standard deviation.

**Results:** Early clinical exposure should be included in the modular curriculum to enhance integration of basic and applied medical knowledge, according to 80% (n = 240/300) students. Majority of students (78%) said that ECE would have prepared them better for the clinical years. Overall, 47.3% respondents said ECE would be a fun way to study and understand medical education, but 31.3% thought it would be timeconsuming.

**Conclusion:** Students in clinical years agreed that if ECE had been included in the curriculum, their knowledge and performance in pre-clinical years would have been greatly improved. In response to students' concerns about ECE being time-consuming, significant research would be required to make it workable for both staff and students.

Keywords: Curriculum, education, hospital, medical school, early clinical exposure

#### 45. Comparative Diagnostic Accuracy of Sonographic Strain Elastography and FNAC in Breast Lesions

Dr. Ume Kalsoom

**Introduction:** Various sonographic techniques have been developed to study the relationship between different structures and tissue elasticity. Detecting malignant tumors using ultrasound elastography is quite useful. The mechanical properties of the tissue under examination can be examined in real time using elastography to detect pathological changes. A high-frequency ultrasonic scanner measures a tissue's modulus of elasticity to compute stretching changes in displacement.

**Aims & Objectives:** To determine the diagnostic accuracy of sonographic strain elastography in breast lesions keeping FNAC as gold standard.

**Place and duration of study:** Radiology Department of Benazir Bhutto Hospital from Aug 2019 to Jan 2020.

**Material & Methods:** The cross-sectional validation study was conducted at the Radiology Department of Benazir Bhutto Hospital, Rawalpindi Medical University, from Aug 2019 to Jan 2020. 259 patients were selected by consecutive non-probability sampling. After taking demographic information, all patients received sonographic elastography.

Lesions were classified using the Ueno system and pressure bar, and FNAC was conducted. SPSS 20 was used to enter and evaluate the gathered data. The sensitivity, specificity, positive predictive value, negative predictive value, likelihood ratio, and accuracy of strain elastography were calculated using FNAC as the gold standard. **Results:** The sensitivity, specificity, PPV, NPV and accuracy of elastography to detect malignancy was 92.2 %, 96.2%, 91.0%, 96.7% and 94.98% respectively. Likelihood ratio was 215.449 (p value <0.0001). The results showed no significant impact of confounders.

**Conclusion:** The sensitivity, specificity, PPV, NPV and accuracy of elastography to detect malignancy was 92.2 %, 96.2%, 91.0%, 96.7% and 94.98% respectively. the likelihood ratio was 215.449 (p-value <0.0001).

**Keywords:** breast neoplasms, biopsy, fine-needle, elasticity imaging techniques

#### 46. Comparison Of Swing Door Versus Standard Technique Of Uncinectomy In Functional Endoscopic Sinus Surgery

Dr. Nousheen Qureshi

**OBJECTIVES:** Functional endoscopic sinus surgery (FESS) is now the gold standard for the management of refractive sinonasal

diseases. Uncinectomy is an important step in endoscopic sinus surgery. Swing door technique gives good postoperative results with lesser complications as compared to the standard technique. The aim of our study is to compare the results and complications of uncinectomy using the standard and swing door techniques during functional endoscopic sinus surgery.

**MATERIAL AND METHODS:** This randomized controlled study is conducted at the Department of ENT, Holy family hospital, Rawalpindi. A total of 112 patients of either gender aged 18–50 years with chronic rhinosinusitis are included and patients are randomly divided into two groups of 56 using a periodic random number. For Group A patients, uncinectomy is performed using standard technique, and for Group B patients, uncinectomy is performed using the swing door technique. Patient is assessed on zero postoperative day for visual acuity and colour vision to look for orbital complications. Follow-up assessment is then performed at the end of the second week and sixth week. Patients are subjectively reviewed for symptomatic relief of nasal obstruction, nasal discharge and postnasal drip using visual analogue scale (VAS) scores and postoperative symptoms will be compared to preoperative ones. The final assessment is done at the end of the sixth week on the basis of subjective assessment using VAS scores and nasoendoscopy to look for bilateral nasal cavities. Nasoendoscopy is done by a ENT surgeon

who is blinded about the technique used on patient in order to remove bias.

**RESULTS** In this study classical technique was used in 56 patients. In group A there was 65% improvement in nasal symptoms (nasal discharge, postnasal drip and nasal obstruction) whereas in group B there was 90% improvement in nasal symptoms. This showed better improvement in symptoms in group B in which uncinectomy was performed by swing door technique. Out of 56 patients of group A, 2 patients had injury to lamina papyracea whereas no injury was seen in any patient in group B in which uncinectomy was done by swing door technique.

**CONCLUSION:** Swing door technique is better than standard technique of uncinectomy in terms of improvement in nasal symptoms and lesser complications

#### **47. Conventional Cold Steel And Modern Technique Bizactligasure For Tonsillectomy: A Comparative Analysis**

Ashar Alamgir

**Objective:** The definitive treatment of tonsillitis is surgical resection of inflamed tonsils. Various surgical techniques have been implicated to refine preoperative and post-operative care of the patients. One such innovation is the use of BiZactLigaSure for tonsillectomy. The study compares the conventional cold steel method and the modern technique BiZactLigaSure for tonsillectomy.

**Material & Methods:** A comparative study was designed using a non-probability purposive sampling technique at DHQ Hospital, Rawalpindi. One hundred participants were enrolled and divided into two groups (50 each). One group underwent BiZactLigaSure tonsillectomy and participants of the other group were treated with the conventional cold steel method. Per-operative (Blood loss, Operative time) and post-operative variables (Pain) were assessed using an independent t-test.

**Results:** The blood loss calculated in Group A patients who underwent BiZactLigaSure tonsillectomy was  $0.39 \pm 0.15$  and in Group B,  $15.9 \pm 2.65$ . The mean operative time assessed in groups A and B was calculated as  $4.26 \pm 0.66$  and  $32.38 \pm 5.56$  respectively. Both of these variables were recorded as highly significant as the P value = 0.000. The pain was assessed using the (Visual analogue Scale) VAS pain scale. The post-operative pain variable was also recorded as a highly significant variable.

**Conclusion:** BiZactLigaSure tonsillectomy procedure is a more effective and safe procedure than the conventional cold steel method as this significantly reduces the blood loss during surgeries, operative time and minimizes postoperative pain.

**Keywords:** BiZact ligature, cold steel, tonsillectomy.

#### 48. The Effects Of Nd: Yag Laser Capsulotomy On Intraocular Pressure In Diabetic Patients

Dr. Maria

**Objective:** To determine the mean intraocular pressure (mean IOP) changes after Nd: YAG laser capsulotomy for posterior capsule opacification (PCO) and to compare IOP in diabetic and non-diabetic patients after Nd: YAG laser capsulotomy.

**Methods:** Total 200 patients of all genders between 26 and 60 years of age who have undergone cataract surgery within 6 months to 3 years prior were included and were treated with minimum possible pulses of Nd: YAG with an energy of 1-13 ml/pulse and capsulotomy with an opening of 3.0-4.0mm of diameter in posterior capsule. After the laser, the intra ocular pressure was measured at 1 hour, 2 hours, 4 hours and 24 hours.

**Results:** Out of 200 patients (200 eyes), 100 patients (50%) were diabetic and 100 patients (50%) were non-diabetic. The mean pre-laser IOP was  $14.72 \pm 2.67$  in diabetic group and  $14.36 \pm 1.47$  in the non-diabetic group. At one hour after laser treatment, the mean IOP was  $19.17 \pm 3.16$

in diabetic group and  $15.62 \pm 2.33$  in non-diabetic group. Mean intra ocular pressure difference at 1st hour is 3.55mmHg in diabetic group which is significantly higher than that in the non-diabetic group which is 1.26 mmHg.

**Conclusion:** This study concluded that IOP rises at 1st and 2nd hour after Nd: YAG capsulotomy and after that it gradually decreases to pre-laser values after 24 hours. Mean intra ocular pressure difference at 1st hour in diabetic group is significantly higher than that in non-diabetic group.

#### **49. Diagnostic Accuracy of Ultrasound in Detecting Hepatocellular Carcinoma Keeping Histopathology as Gold Standard**

Qurat Ul Ain Arif1

**Objective:** To determine the diagnostic accuracy of USG in detecting hepatocellular carcinoma.

**Methodology:** This cross sectional validation study was conducted from 0-2-06-2018 till 01-06-2019 at Department of Diagnostic Radiology, Combined military hospital Quetta. A total of 70 patients with liver cirrhosis with mass and age 18-60 years of either gender were included. Nodular lesion <3 cm in size, non-specific vascular profile, poor visualization and FNA / biopsy can cause complications were excluded. All the patients then underwent first ultrasound and then histopathology.

The ultrasonography findings were recorded the presence or absence of HCC and correlated with CT scan findings. Mean and standard deviation were calculated for age. Frequency and percentage were calculated for gender

**Results:** In USG positive patients, 31(44.28%) True Positive had hepatocellular carcinoma and 03(4.28%) False Positive had no hepatocellular carcinoma on histopathology. Among 36 USG negative patients, 04(11.11%) False Negative) had hepatocellular carcinoma on histopathology whereas 32 (88.8%) True Negative had no hepatocellular carcinoma on histopathology ( $p=0.0001$ ). Overall sensitivity, specificity, positive predictive value, negative predictive value and diagnostic accuracy of ultrasound in detecting hepatocellular carcinoma keeping histopathology as gold standard was 88.57%, 91.43%, 91.18%, 88.89% and 90.0% respectively.

**Conclusion:** This study concluded that grey scale ultrasound along with Doppler ultrasound is a simple, non-invasive, economical, readily available imaging modality with high sensitivity and accuracy in diagnosing hepatocellular carcinoma.

**Keywords:** Accuracy, Hepatocellular carcinoma, Ultrasonography

#### **50. Association Of Different Haematological Parameters And Lipid Profile With Blood Glucose Regulation In Type 2 Diabetes Patients**

Dr.Sualeha Ahmed ,

**INTRODUCTION:**

Diabetes is characterized by chronic hyperglycemia with disturbances of carbohydrate, protein and lipid metabolism. Disorders of lipid metabolism are common in diabetes causing greater cardiovascular risks. Leukocytosis is a major marker of metabolic syndrome. Both neutrophil to lymphocyte ratio (NLR) and platelet to lymphocyte ratio (PLR) are related to subclinical inflammation worsening the glycemic control. HbA1c is used as a marker of blood glucose regulation.

**OBJECTIVE:**

To investigate the association of different haematological parameters and lipid profile with blood glucose regulation in patients with type 2 diabetes mellitus.

**METHODS:** This comparative analytical study was conducted in Shifa International Hospital on diabetic patients. Sample size was calculated as 62 by WHO sample size calculator. Non randomized convenient sampling was used. Patients were divided into two groups according to HbA1c level taking 7% as cut off point. Full blood count, lipid profile and liver profile were done. Data was analyzed by SPSS version 21. Descriptive statistics were calculated for categorical variables. For quantitative normal and dispersed variables, independent student t and Mann Whitney U test were applied respectively. P Value less than 0.05 was considered significant.

**RESULTS:** Out of total 93 patients 33 (35.4 %) were males and 60 (64.5%) were females. The mean duration of disease was  $7.61 \pm 5.8$ . NLR and PLR were elevated in

patients having poor glucose control but that difference was not significant. Significant difference between the groups was found with random blood glucose. LDL, triglycerides, cholesterol ratio, ALT and AST were raised in patients having poor glycemic control.

**CONCLUSION:** Patients having poor blood glucose regulation have increased levels of haematological and serological parameters posing greater cardiovascular health risks to patients with type 2 diabetes.

### **51. Comparison Of Gabapentin And Dexamethasone In Postoperative Pain After Tonsillectomy Among Children**

Dr. Waqas Anjum

**AIMS AND OBJECTIVES:** To compare gabapentin with dexamethasone in mean post-operative pain control after tonsillectomy in children.

**METHOD:** A total of 60 patients undergoing elective tonsillectomy were selected at Benazir Bhutto Hospital, Rawalpindi. Patients were divided into two groups. One group was given 10mg/kg gabapentin orally 2 hours before the induction of anesthesia while second group received 0.15mg/kg I/V dexamethasone after induction of anesthesia. All the patients were given same standard regarding intra-

operative and post-operative care. Pain score were recorded according to Wong-Backer FACES pain rating scale at 6 hours after the surgery. Analysis was done using SPSS and Pain score of both groups were compared by student t-test. P value < 0.05 was considered as significant.

**RESULTS:** The mean age of the patients was  $8.93 \pm 2.2$  years. Out of 60 children, 35 were females (58.3%) while 25 were males (41.7%). The average pain score was measured in both the groups (dexamethasone group and gabapentin group) at 6 hours post-operatively and it was compared. The mean pain score in Gabapentin group was  $3.4 \pm 2$ , and it was  $4.5 \pm 2$  in Dexamethasone group (p value=0.031).

**CONCLUSION:** The patients receiving pre-operative oral gabapentin had statistically significant lesser pain as compared to the patients who received dexamethasone in post-operative period.

**KEY WORDS:** gabapentin, dexamethasone, postoperative pain, tonsillectomy.

## for Transurethral Resection of Prostate

Waqas Anjum<sup>1</sup>

**BACKGROUND:** Spinal anesthesia is often the mode of anesthesia in transurethral resection of prostate (TURP) albeit with risk of hypotension. However, hemodynamic derangement is often less pronounced in saddle block. This study was conducted to compare the mean fall in Mean arterial Pressure (MAP) and Heart rate (HR) between modified saddle block and subarachnoid block for TURP.

**OBJECTIVE:** To compare the mean fall in MAP and HR between modified saddle block and subarachnoid block for TURP.

**METHODS:** In this randomized controlled trial 120 patients undergoing elective TURP were included and divided into two groups. Group A Patients received subarachnoid block and Group B received modified saddle block. Baseline hemodynamics were recorded before and then at 5 minutes after anesthesia. All the collected data was entered into SPSS version 22 and analyzed. Quantitative data like age, BMI, ASA-PS score, duration of surgery and baseline hemodynamics were presented as means and standard deviations. The fall of mean arterial pressure (MAP) & heart rate (HR) were compared among groups by independent t test and P value < 0.05 was considered as statistically significant.

**RESULTS:** Mean fall in MAP was  $8.98 \pm 1.28$  mmHg and  $3.13 \pm 0.68$  mmHg (p<0.001) in

## 52. Hemodynamic Comparison between modified saddle block and subarachnoid block

group A and B, respectively. Mean fall in HR was  $7.17 \pm 0.98$  and  $2.78 \pm 0.59$  ( $p < 0.001$ ) in group A and group B, respectively.

**CONCLUSION:** Modified saddle block resulted in significantly decreased fall in MAP and HR as compared with subarachnoid block for TURP.

**KEY WORDS:** Modified Saddle Block; Subarachnoid Block; Mean Arterial Pressure

### 53. Management Of Spinal Tumors Patients Presenting In Holy Family Hospital Rawalpindi

Dr. Ashraf Mehmood

**Background:** Spinal tumors not only create anatomical problems, but they also have an impact on bodily functions. In the management of individuals with spinal tumors, surgery plays a crucial role. This research will look at their clinical characteristics, functional results, and prognostic variables.

**Methods:** 20 individuals with spinal tumors were studied retrospectively over a three-year period.

**Results:** nine (45%) were intradural, and eleven (55%) were extradural. The average age of the patients at the time of surgery was range 20–80 years. Pain, limb weakness, and sensory loss were all prevalent clinical symptoms. In the intradural extramedullary group,

schwannoma was prevalent, but in the intramedullary group, astrocytoma and ependymoma were common. In this example, 16 (80%) of the patients improved after surgery, while 4 (20%) stayed unchanged; none of the patients deteriorated. Persistent discomfort was a common consequence.

**Conclusion:** Early examination and excision are required for spinal tumors, and most patients recover well with no long-term effects

### 54. Endoscopic repair of endoscopic skull base defects: An Institutional Experience

Dr. Ahmad Hassan

**INTRODUCTION:** Cerebrospinal fluid rhinorrhea (CSF), classically described as the leakage of CSF from the nose, indicates an opening of arachnoid and dura with an osseous defect leading to a communication of subarachnoid space with the nose<sup>1</sup>. It is often caused by trauma. However, it may be idiopathic, congenital or due to neoplastic lesions<sup>2</sup>. Common sites of the defect include the frontal, ethmoid, and sphenoid sinuses as well as the cribriform plate<sup>3</sup>. Symptoms include clear, colorless, usually unilateral nasal discharge<sup>4</sup> which is classically positional in nature and exacerbated by dependent head positioning (i.e., “reservoir sign”). Endoscopic intranasal fistula repair is now the preferred approach to treatment. Generally, a small defect can be closed with an overlay free mucosal graft or a free

fascial graft. Large bony defects are sealed with the help of bone grafts.

**METHODOLOGY:** This retrospective study of 44 patients of cerebrospinal fluid leakage was conducted by department of ENT and Head & Neck surgery Benazir Bhutto Hospital Rawalpindi from January 2013 to December 2020. Patients who presented to ENT clinics with active complaint of CSF rhinorrhea were included in study. Patient's data was collected in terms of cause, site of leakage, different graft materials, success of surgery and complications like meningitis or anosmia. High resolution CT scan, MRI and nasoendoscopic examination was done to determine the exact site of CSF leak. All patients of CSF rhinorrhea were operated under general anesthesia. The defect was closed in three layers using Fat, fascia Lata and nasal mucosa along with fibrin glue sealant in majority of patients. In larger defects septal cartilage was used to cover the bone defect. Results of surgery were assessed in form of successful closure of defect and absence of CSF leakage. Clinical follow up was done up to one year.

**RESULTS:** Forty-four patients of CSF rhinorrhea underwent endoscopic repair of CSF leak. The mean age of patients was from 12 to 52 years. The clinical follow up was done up to one year. There were 26 males (59.1%) and 18 females (40.9%) in the study. The most common cause of CSF leak in patients was accidental trauma 52.3 % (n = 23). In 25 % (n=11) patients, CSF rhinorrhea was iatrogenic. 22.7 % (n=10)

patients presented with spontaneous CSF leak and no exact cause was known.

**CONCLUSION:** Accurate localization of site of leakage using high resolution computed tomography and magnetic resonance image confirming the site of leakage by intrathecal Fluorescein dye along with multilayer closure of Dural defect and postoperative lumbar drain appears to be essential for successful endoscopic repair of CSF rhinorrhea.

### **55. Efficacy Of Platelet Rich Fibrin In Myringoplasty**

Dr. Nida Riaz

**Objective:** The aim of the study was to determine the efficacy of usage of topical autologous platelet rich fibrin (PRF) in improving outcomes of myringoplasty regarding graft uptake and hearing improvement.

**Methodology:** The study involved a total of 50 participants. In all the patients, myringoplasty was done through post auricular approach using underlay technique. Temporalis fascia graft was used. In 25 patients topical drops of PRF were used. Outcomes were compared after three months with the control group (n=25), who underwent simple myringoplasty without PRF.

**Results:** After three months follow-up, graft uptake was reported 78% and 52% in cases and controls, respectively (P=0.070).

Mean hearing improvement was 18 dB and 6 dB in cases and controls, respectively ( $P=0.014$ ). Postoperative infection occurred in 8% of the cases, and in 32% controls ( $P=0.037$ ). There was significant reduction in size of perforation among cases where graft uptake did not take place.

**Conclusion:** Topical use of Platelet-Rich Fibrin during myringoplasty results in improved graft uptake. Hence, resulting in much improved hearing and significant reduction in infection rates and decrease in perforation sizes.

#### 56. Frequency Of Otitis Media With Effusion Among Children Aged 1-5 Years Presenting To Immunisation Centre Of Tertiary Care Hospitals, Rawalpindi

**Nida Riaz**

**Objective:** We conducted this study to assess the etiopathogenic relation of otitis media with effusion in a group of children aged 1-5 years among the local population of Rawalpindi.

**Study Design:** This was a cross-sectional retrospective study.

**Setting:** Study was conducted among the children presenting to the immunization center of three tertiary care hospitals of Rawalpindi.

**Subjects and Methods:** Otitis media was assessed by clinical examination and tympanometry from August 2019

to January 2020. Multi-factor regression analysis was then applied to recognize the statistical significance and association of various risk factors to OME.

**Results:** Out of 400 children enrolled in this study, 108 (27.0%) had OME, out of which 65 (60.2%) were males and 30 (27.8%) were of age group 2-3 years. Multivariable regression analysis of risk factors associated with OME showed it was strongly associated with snoring ( $P<0.001$ ), Last year symptoms [attack of ear aches with hearing loss ( $p=0.002$ )], Drugs [URTI antibiotics ( $p=0.026$ ), All 3 drugs ( $p=0.013$ )]

**Conclusion:** We found out that otitis media with effusion is a common disease which if not identified or treated timely can lead to other hard to cure health problems. Control of its etiopathogenic factors can play a major role in its prevention. The prevalence of OME in our study is 27%. In our region, the most important associated factors in etiopathogenesis of OME are modifiable, we suggest their use in forming a basic criterion to assess high risk children who can then be better targeted for the primary prevention measures. In addition, the results of our study can help improve the knowledge of primary healthcare providers, pediatricians and otorhinolaryngologists about the most important associated risk factors of OME in children who can then in turn educate the parents and school teachers for early detection of such cases. This will ultimately lead to improved care giver support and also lighten the economic burden.

## 57. Microscopic assisted Parotidectomy for facial nerve identification and preservation

Dr Muhammad Arshad

**Introduction:** -Parotidectomy is a widely done surgical procedure both for benign as well as malignant diseases of parotid gland. Parotidectomy is a well-known and safe procedure. Immediate postoperative facial nerve weakness may occur in 10% to 40% of patients treated for a benign neoplasm. Whereas permanent postoperative facial weakness has been described in 1% to 7.1% of patients. Malignant lesions are generally related to a high-rate facial nerve palsy. Concept of microsurgical method in parotid surgery is recent technique.

**Methodology:** -Retrospective study involving 35 patients with parotid lesions at department of ENT and Head & Neck surgery BBH from January 2017 to December 2021. High-resolution ultrasonography (US), computerised tomography (CT), magnetic resonance imaging (MRI) and fine needle aspiration cytology (FNAC) were used for preoperative evaluation. Facial nerve function was evaluated preoperatively, on the first day after surgery, after one month and at least at three months after surgery. Patients underwent superficial or total Parotidectomy according to the extension of the tumour. Facial nerve dissection was always performed coupling the

intraoperative microscope (ZEISS OPMI Sensera, focal length 400 mm).

### RESULTS: -

Type of tumour	Frequency
Pleomorphic adenoma	26(74.2%)
Warthin tumour	2(5.7%)
Monomorphic adenoma	1(2.85%)
Mucoepidermoid carcinoma	5(14.28%)
Adenoid carcinoma	1(2.85%)

Type	Facial nerve paralysis
Temporary facial nerve palsy	3(8.57%)
Permanent facial nerve palsy	1(2.8%)

**Conclusion:** -Microscopic assisted antegrade parotidectomy led to fewer complication. Use of microscope during in surgery may present useful tool in improving accuracy and decreasing facial nerve paralysis.

## 58. Recommendation For Management Of Burn Patients In Context Of Covid-19 Pandemic

Dr. Sajid Rashid<sup>1</sup>

**Introduction:** It has been reported from china that burn centers have the highest risk of COVID-19 infection. Burn patients have low level of immunity, lack skin barrier and are prone to infections. Hence management of burn patients should be

modified to prevent the spread of infection and decrease mortality. For that we adopted certain changes in the protocols for management of burn patients at Rawalian burn center. These recommendations include alterations in a variety of existing strategies and devising new recommendations aimed at minimising the spread of infection and decreasing the mortality of the patients.

**Methodology:** A special management plan was made to apply these recommendations for burn management during COVID-19 pandemic, based on our local experience at Rawalian burn center RMU Pakistan. These recommendations are different from routine recommendations for burn treatment as certain COVID-19 related changes in structure of burn center layout and its administration procedures have been suggested in them.

**Results:** The management plan devised is as under;

1. Changes in burn center administration system
2. Changes in burn ward layout
3. Disinfection policy
4. Admission policy
5. Receiving new patient in emergency
6. Guidelines for operative procedures on COVID-19 positive patients

7. Management of traffic in and out of burn ward
8. Protection of health personnel in burn ward
9. Recommendations regarding diet of burn patients
10. Dealing with psychological issues of burn patients
11. Preventing burnout syndrome in health personnel of burn center

**Conclusion:** Upon implementation of our management plan the preliminary results confirm significant reduction in the spread of COVID-19 spread as well as a reduction in mortality of the burn patients.

**Key words:** Burn, COVID-19, Management plan

**59. To compare the mean scores off excellent surgical field clearance between 10 and 25 minutes delay incision after surgical site infiltration in patients under going for excision and reconstruction of head and neck tumors.**

Dr. Husnain khan

**Introduction:** Local anesthetic agents in combination with epinephrine are frequently used in local reconstructive procedures. The use of epinephrine has been shown to decrease bleeding by vasoconstriction, prolong the analgesic effect and reduce the systemic effects of local anesthetic agents. To achieve the best possible surgical results it is of great importance that the surgeon

knows how long to wait before making the first incision ,while at the same time avoiding patient distress caused by long waiting hours .

**Results:** By using chi square result of both groups were analysed and it showed that patient in which incision was given at 25 minutes showed less bleeding , less suctioning was required ,surgery was more easier as compared to patients in which incision was given at 10 minutes **Conclusion:** By using chi square result of both groups were analysed and it showed that patient in which incision was given at 25 minutes showed less bleeding , less suctioning was required ,surgery was more easier as compared to patients in which incision was given at 10 minutes.

**Key words:** excellent surgery field clearance , head and neck skin tumors

## 60. Association between Vitamin D Deficiency and Asthma in childhood

Qurat-ul-Ain Aslam

**Background:** This study was designed to determine the relationship between vitamin D deficiency and asthma in paediatric age group as compared to controls. Asthma is among one the major causes of morbidity in children and it is suggested that vitamin D deficiency plays a role in asthma severity since it has immunomodulatory effects.

**Methods:** This case-control study was performed at Benazir Bhutto Hospital

Rawalpindi in paediatric department from January 2015 to May 2015. Cases and controls were recruited from the same hospital through consecutive sampling. Cases were patients with asthma and controls were patients with a minor illness other than asthma presenting in the outpatient department. The patients who had rickets, known vitamin D deficiency, renal disease, liver disease and other respiratory problems (tuberculosis, pneumonia cystic fibrosis) as assessed on medical records or history and examination were excluded both for cases and controls. Vitamin D levels were checked in all patients. The data was recorded and analysis was done through SPSS 14.

**Results:** The two groups were comparable for age and gender. The mean age of patients in cases was  $7.66 \pm 2.92$  while among controls it was  $7.23 \pm 2.65$  years. Among 30 patients with asthma, vitamin D deficiency was found in 19 (63.33%) while in controls it was found in 8 patients (26.67%). P-value was 0.004 which was statistically significant. The odds ratio was 4.75, 95 % confidence interval for odds ratio showing a significant difference between the two groups.

**Conclusion:** Vitamin D deficiency was remarkably higher in asthmatics in comparison to non-asthmatic children.

**Keywords:** Children, Asthma, Vitamin D deficiency, Association.

### **61. Single-dose Dexamethasone versus multi-dose Prednisolone in the prevention of exacerbation and relapse in Asthmatic children; a Randomized Controlled Trial**

Dr. Tariq Mehmood

**Introduction:** Asthma is a common chronic inflammatory disease of the airways characterized by reversible airflow obstruction, and bronchospasm. The first line of treatment in the management of acute asthma is inhaled beta 2 agonists (salbutamol). This study is designed to determine the effectiveness of intravenous dexamethasone compared to oral prednisolone in asthmatic children in preventing exacerbation and relapse. It may be more helpful in improving the quality of life of asthmatic children being a better convenient treatment modality. **Aim:** To compare the frequency of relapse of asthma with dexamethasone and prednisolone in the treatment of asthma exacerbations in children.

**Subject and Methods:** This is a randomized controlled study that was conducted at the ICU of the Paediatric Department, Holy Family Hospital from 16th March 2016 to 15th September 2016. 468 patients with asthma exacerbation were selected in this study. Patients were randomly allocated into two groups. A total of 234 patients in group A were treated with single IV dose Dexamethasone and 234 in group B were treated with oral prednisolone. Baseline characteristics of children were recorded in the structured proforma along with signs

and symptoms assessed through history, physical examination and PRAM (Paediatric Respiratory Assessment Measurement) Scoring. After treatment and assessment, the patients were discharged on day 5 and they were called back by the end of 2 weeks for the final follow up visit. In case of any relapse, they were clearly instructed to immediately return to the hospital which was recorded. 200 Journal of Rawalpindi Medical College (JRMCI); 2019; 23(4): 199-203

**Results:** The average age of the children  $3.31 \pm 0.97$  years. There were 173(37%) females and 295(63%) males. The rate of relapse was significantly low in group A as compared to group B (9.8% vs. 17.9%  $p=0.011$ ).

**Conclusion:** it is concluded that dexamethasone is an effective alternative to prednisone in the treatment of moderate acute asthma exacerbations in children, with the added benefits of improved compliance and cost.

**Keywords:** Asthma, Prednisolone, Relapse of dexamethasone

### **62. Comparison of Efficacy of Epinephrine to Salbutamol and Ipratropium Bromide Combined in Acute Bronchiolitis**

Dr. QAISER SHEHZAD HUMAYOUN

**Background:** Epinephrine, an alpha receptor agonist, has been suggested to be a supreme bronchodilator. A biologically active drug name Ipratropium bromide is

helpful for the treatment of bronchiolitis among infants and improves on the signs and symptoms of bronchiolitis.

**Objective:** To compare effectiveness of combined nebulized salbutamol with nebulized adrenaline and ipratropium bromide in bronchiolitis affected children in terms of mean improvement in RDAI score.

**Methodology:** After approval from ethical committee this randomized control trial of 6 month duration is carried out by Randomization of patients in 2 groups. Group A received salbutamol (0.15mg/kg) combined with ipratropium bromide (250 micrograms per dose) with isotonic sodium chloride solution 0.9% (2 mL) and Group Breceived a dose of epinephrine (0.5mg/kg in concentration of 1:1000(max 5 mg), distributed by nebulizer with the help of a face mask with continuous oxygen flow at 6L/min Prior to each drug administration and at 30 mints, the researcher evaluated the condition of infant's and records the respiratory rate, RDAI score<sup>9</sup> , heart rate and SaO<sub>2</sub>.

**RESULTS:** Comparison of effectiveness of combined nebulized salbutamol with nebulized adrenaline and ipratropium bromide in bronchiolitis affected children in terms of mean improvement in RDAI score shows that at baseline in Group-A it was 10.73±1.59 and 10.98±1.42, p value was 0.27, it was reduced after 30 minutes of treatment in Group-A 3.23±0.52 and 2.67±0.47 in Group-B, pvalue was 0.001.

**Conclusion:** We concluded that Epinephrine is better than salbutamol and ipratropium combined in terms of mean improvement in RDAI score

**Keywords:** Bronchiolitis, children, salbutamol and ipratropium Bromide, Epinephrine.

### 63. Efficacy of varicocelectomy in terms of mean sperm count and sperm motility: AQuasi-experimental study

Dr. Asim Shahzad

**Background :** Varicocele is a clinical entity in which the veins present in the spermatic cord in males become abnormally broad and asymmetric. Variocoele is quite common that affects men irrespective of age. The prevalence usually varies around 15%. Although there is an association of surgical correction of varicocele and improved sperm parameters, there are some differences regarding the selection criteria of the patients and the surgical methodology. In addition, there are several differences in the reasons for treatment of a varicocele in an adolescent and the timing of treatment.

**Objective:** To compare the pre and post varicocelectomy mean sperm count and mean motile sperm percentage among the patients with varicocele.

**Material and method :** Semen samples were acquired preoperatively by masturbation after atleast five days of sexual abstinence and in a sterile plastic container. Macro and microscopic assessment of Semen samples were analyzed macro and microscopically as per standards of WHO guidelines. Under aseptic measures surgery was performed with the inguinal approach ,i-e; Ivanissevich procedure and performed under subarachnoid block. The spermatic cord was identified and spermatic veins were identified and separated from the spermatic cord and were ligated and transected.

Semen analysis was again repeated after a time period of three months of surgery and. All the data were collected into the attached proforma along with the demographic details. All the surgeries were performed by the same surgical team including the candidate lead by the consultant and all the lab tests were done in the hospital lab to eliminate bias.

**Results:** Patients varied in age from 22 to 65 years old, with a mean age of 37.0 years. The mean duration of symptoms was 22 months with a range of 3-50 months. The mean preoperativesperm count in our study was 25 million/ml. The mean preoperative sperm motility was 57 million/ml. Postoperatively, the patients saw a significant improvement in the sperm parameters with sperm count improving from 24.6/ml to 36.9/ml which was statistically significant. The total motile

sperm percentage also improved significantly from 57.3% to 65.5% (p-value <0.05).

**Conclusion:** We established that varicocele surgery results in overall improvements of total sperm counts and total motile sperm at 3 months after the surgical procedure. This may improve rates of pregnancy in couples suffering from male factor infertility.

#### **64. Tyrosine kinase inhibitors resistance in Pakistani chronic myeloid leukemia patients and its association with age & gender**

Dr. Asma Khan

**Background:** Among all the diagnosed adult leukemia, CML make up to ~20%. Reciprocal translocation t(9;22)(q34;q11) of chromosome 9 & 22 resulting in fusion of BCR and ABL 1 genes, is the root cause of Chronic myeloid leukemia (CML). The novel, BCR-ABL fusion gene results in expression of the constitutively active tyrosine kinase BCR-ABL protein. Imatinib mesylate (IM), a tyrosine kinase inhibitor, is a molecular targeted drug for the treatment of all phases of CML

**Aim:** The study was conducted to evaluate the association of age & gender with resistance to Tyrosine kinase inhibitors in chronic myeloid leukemia patients.

**Methods:** A cross sectional study was conducted at the Pharmacology Department of Riphah International University from Jan 2020 to Dec 2021. Chronic myeloid leukemia patients were labelled as resistant patients after

following guidelines provided by European leukemia net. 80 patients were enrolled in the study after strictly following the inclusion & exclusion criteria and followed up for 6 months and their hematological, cytogenetic & molecular response was determined to label them as responders or non-responders to the treatment. Numerical and categorical data was analyzed by chi-square and t-test using SPSS 23.

**Results:** Our study demonstrates that 62% of the patients were responders while 38% (96) were non-responders. Out of males, 72 % responded to Imatinib optimally while out of the female subjects 84% produced desirable response. This clearly demonstrated that there was no effect of gender on Imatinib response status with  $p=0.48$ . The mean age of responders and non-responders was found to be  $32.23 \pm 8.34$  years and  $46.13 \pm 6.93$  respectively. The effect of age on response of Imatinib among different age groups was found to be statistically significant with  $p=0.04$ .

**Conclusion:** Age may have influence on the Imatinib response along with the other factors while gender does not influence resistance .

**Key Words:** Imatinib, Chronic Myeloid Leukemia, Hematological, Cytogenetic response

#### 65. Histopathological Impact Of Carica Papaya Seed Extract In Rat Model Of Gentamicin Nephrotoxicity

Dr. Attiya Munir

**Background:** Kidneys are susceptible to many commonly used drugs, owing to their property of filtering, reabsorbing, and excreting multiple drugs.

**Aim:** To study the renoprotective effect of ethanolic seed extract of Carica papaya on renal histomorphology in nephrotoxicity caused by Gentamicin.

**Study design:** Experimental study.

**Methodology:** Rats (n=30) were subdivided into 3 equal groups. Group I (control group) and Group II & III were administered Gentamicin. 80 mg/kg was given daily for 05 days continuously, intraperitoneally to cause nephro-toxicity. Histomorphological examination of kidney tissue was done on day-6. In group-III, ethanolic extract of Carica papaya seeds (1000 mg/kg) was given daily for 5 days orally for its induction of nephro-protective effects. Data was entered and analyzed in computer using SPSS 24.

**Results:** Acute Tubular Necrosis (ATN) and presence of Hyaline casts in the lumen of proximal tubules were the distinctive morphological characteristics in group II and III. Histopathological specimens of the kidney in Ethanolic treated group showed moderate characteristics of renal damage as compared to that of the disease control group.

**Conclusion:** Study concluded that Carica papaya seed extract can significantly ameliorate the nephrotoxic effects of Gentamicin thus nephro-protective.

**Keywords:** Gentamicin, Carica papaya, Nephrotoxicity and Histomorphology

## 66. Glycemic Response to Metformin and its Association with Age and Gender in Type II Diabetes

Dr. Zunera Hakim

### Background:

Diabetes Mellitus has become a global health concern due to its continued rise in prevalence. According to International Diabetic Federation (IDF), Type II diabetes mellitus (T2DM) currently affects 462 million people worldwide and is expected to grow from this figure to 642 million by 2040.

**Aim:** The study was conducted to evaluate the glycemic response to metformin in Type-II diabetes and assess its association with age and gender.

**Methods:** A cross sectional study was conducted at the Pharmacology Department of Riphah International University from Jan 2020 to Dec 2021. Type-II diabetic patients (n=200) on metformin monotherapy fulfilling the inclusion criteria were enrolled and followed up till three months. Baseline parameters were documented and reduction in HbA1c was determined. Numerical and categorical data was analyzed by chi-square and t-test using SPSS 23.

**Results:** Our study demonstrates that 52% (104) of the patients were metformin responders while 48% (96) were non-responders. The reduction in HbA1c was significantly greater in responders than non-responders ( $-1.58 \pm 1.07\%$  VS  $-0.32 \pm 0.35\%$ ). Out of 85 males, 46 (54%) responded to metformin optimally while only half (50%) of the female subjects produced desirable response. However,

there was no effect of gender on metformin response status with  $p=0.60$  and changes in HbA1c levels over time were not significantly different in either sex. The mean age of responders and non-responders was found to be  $48.23 \pm 9.64$  years and  $44.13 \pm 7.82$  respectively. The effect of age on response of metformin and mean change in HbA1c among different age groups was found to be statistically significant with  $p=0.03$  and  $p=0.04$  respectively.

**Conclusion:** There exists variability in response to metformin in type-II diabetes which is associated with age of the patient but remains uninfluenced by gender of the patient.

**Key Words:** Metformin, Type –II diabetes, gender, glycemic response

## 67. Effect of N-Acetylcysteine Therapy on Mortality Rate in Patients of Acute Aluminium Phosphide Poisoning

Dr. Shahbaz Ashraf

**Objective:** To determine the effect of N-acetylcysteine therapy on mortality rate in patients of acute aluminium phosphide poisoning.

**Method:** This Randomized Controlled Trial was conducted in the Department of Medicine, King Edward Medical University/ Mayo Hospital, Lahore from January 2018 to March 2019. Ninety-six patients with acute aluminium phosphide poisoning were selected via simple random sampling technique. The patients

were divided into two groups, group A received supportive management and group B received N-acetylcysteine therapy along with supportive care. The patients were followed up to the primary end point of the study, i.e. either discharge from hospital after recovery or death. Relevant information was recorded on a pre-designed proforma. Data analysis was done using SPSS Version 23.0.

**Results:** Out of a total of 96 patients, 50 (52.1%) were males and 46 (47.9%) were females. Mean age of the patients was  $27.5 \pm 9.8$  years. In Group A (supportive therapy), 29 (60.4%) patients died while 19 (39.6%) were discharged after recovery. In Group B (N-acetylcysteine + supportive therapy), 17 (35.4%) patients died while 31 (64.6%) were discharged after recovery. N-acetylcysteine therapy significantly reduced mortality in patients with acute aluminium phosphide poisoning ( $p=0.024$ ).

**Conclusion:** N-acetylcysteine in combination with supportive therapy significantly reduced mortality rate in patients with acute aluminium phosphide poisoning compared to supportive therapy alone.

**Keywords:** Aluminum Phosphide, N-acetylcysteine, Supportive Therapy

## 68. Outcomes of Micro Pulse Transscleral Diode Laser cyclophotocoagulation in Refractory glaucoma

Dr. Ambreen Gul

**Introduction** Glaucoma a progressive optic neuropathy is one of the major causes of irreversible blindness. Conventional Continuous wave transscleral cyclophotocoagulation a known treatment for refractory glaucoma can cause serious complications. Micro pulse diode laser with novel contact probe delivers laser in bursts with 'on time and off time' thus reducing cumulative thermal damage of tissues.

**Aims and objectives** Current study was conducted to evaluate the outcomes of Micro Pulse Transscleral Diode Laser in terms of safety and efficacy in various types of refractory glaucoma

**Materials and methods** It was a descriptive case series including 60 eyes of 59 patients with refractory glaucoma. Patients underwent uP-TSCPC with A.R.C Fox portable diode laser. Micro pulse P3 probe delivered 2000mW for 80 seconds for each 90-degree arc 3mm away from limbal margin. Duty cycle was 31.3 % with 0.5ms on time and 1.1ms off time. Best corrected visual acuity and intraocular pressure was documented pre-laser as baseline and post-laser 1 week, 1 month till 3 months. Intraoperative and post-operative complications were also noted.

**Results** : Mean age of patients was  $52.93 \pm 17.79$  SD years. There were 39 (65%) males and 21 (35%) females. The mean pre-laser IOP was  $32.90 \pm 6.47$ . Mean post-laser IOP was  $16.48 \pm 7.69$  at 1 week,  $17.20 \pm 6.33$  at 1 month and  $18.13 \pm 5.78$  at 3 month

( $P=0.000$ ). Significant reduction in IOP from baseline was seen at each follow-up. Mean pre-laser BCVA was  $0.06 \pm 0.17$  Snellen decimal. Mean post-laser BCVA was  $0.06 \pm 0.17$ . BCVA was preserved in all patients (100%) with no complete loss of vision in any eye. 9 patients had mild early post-laser inflammation, 3 patients had hypotony and tonic pupil while 2 patients had IOP spike, corneal edema and hyphaema was seen in 1 patient each. At 3 months, treatment success was seen in 51 (85%) patients. Use of antiglaucoma medications decrease from  $3.85 \pm 0.10$  to  $1.07 \pm 0.16$  which was statistically significant ( $p=0.000$ ).

**Conclusion**  $\mu$ P-TSCPC is safe, effective and noninvasive method of treatment for refractory glaucoma leading to both persistent reduction of intraocular pressure and decrease need for topical anti-glaucoma medications without significant intraoperative and postoperative complications.  $\mu$ P-TSCPC also leads to preservation of BCVA; therefore, it is safe procedure in refractory glaucoma eyes with good visual potential.

**Key words:** Micro pulse transscleral diode laser, Cyclophotocoagulation, Refractory glaucoma, Optic neuropathy, Intraocular pressure

#### 69. Gallbladder Wall Thickening In Dengue Fever Aid In Labelling Dengue Hemorrhagic Fever And A Marker Of Severity

Dr. Sualeha

**Introduction :** Dengue fever is a mosquito borne viral disease spread by the bite of the *Aedes aegypti* mosquito. Dengue epidemics have contributed to a great economic burden, especially in South-East Asia. This study aimed to determine gall bladder wall thickness (GBWT) in patients with dengue fever, assess its sensitivity and specificity to identify dengue hemorrhagic fever, and also compare gallbladder wall thickening (GBWT) with platelets, hematocrit, and leucocyte count.

#### Materials & methods

This prospective observational study was conducted in the dengue ward of Benazir Bhutto Hospital, Rawalpindi, Pakistan, from September 2019 to January 2020, i.e., four months. Patients admitted to the dengue ward diagnosed as seropositive and provided consent were enrolled into the study. Laboratory investigations (blood complete picture, liver function tests, renal function tests) were collected and recorded. Ultrasonography was performed on admission and subsequently during a hospital stay. Patients were divided into two groups: those with gallbladder wall thickness  $\leq 3$ mm and  $>3$ mm. All data were entered and analyzed on SPSS version 24 (IBM Inc., Armonk, USA).

#### Results

Out of 180 patients, 122 (67.8%) were male, and 58 (32.2%) female. The mean age was  $33 \pm 13$  years. One hundred and six patients (58.9%) were diagnosed with dengue fever, 68 (37.8%) - dengue hemorrhagic fever, and six (3.3%) - dengue shock syndrome. The most common finding was gall bladder wall thickness  $>3$ mm (69/180; 38.3%) followed by ascites (38.1%). Sixty-two patients out of 69 (89.9%) with GBWT  $>3$ mm were

managed as dengue hemorrhagic fever( $p=0.000$ ).Alanine transaminase(ALT), platelet, and total leukocyte count(TLC) were associated positively with an edematous gallbladder wall( $p<0.005$ ).The mean gallbladder wall thickness for dengue hemorrhagic fever was  $6.4\text{mm} \pm 2.5\text{ mm}$ . A GBWT value of  $3.5\text{mm}$  was found to have 94.6% specificity and 91.2% sensitivity.

### **Conclusion**

Gallbladderwalledema isstronglycorrelated withdenguehemorrhagicfever.Henceitsho uldbeassessedinallpatientswithdenguefev er.

## **70. Recurrence of nasal polyposis in patients undergoing FESS and Conventional Intranasal Polypectomy**

**Dr. Sadia Chaudhry**

**Background:** Nasal polyposis is a multifactorial disease. Broadly defined, nasal polyps are abnormal lesions that originate from any portion of the nasal mucosa or paranasal sinuses. Nasal polyp(s) generally affects 1–4% of the population. Functional endoscopic sinus surgery (FESS) has been used in the treatment of sinus diseases for more than 20 years. Conventional Intranasal polypectomy was an effective treatment previously used. **Objective:** The objective of study was to compare the frequency of recurrence of nasal polyp(s) in patients undergoing FESS and conventional intranasal polypectomy. Study design: It was a quantitative experimental study.

**Material & Methods:** Study was conducted in department of ENT, Fauji Foundation Hospital, Rawalpindi. The duration of study was 1 year after approval of synopsis. 80 patients were selected after computing WHO calculator. Randomly patients were divided into two groups. Probability simple random sampling technique was used to recruit participants. Group A underwent conventional intranasal polypectomy while Group B underwent Functional endoscopy sinus surgery. Post stratification chi-square test was applied. P value $\leq 0.05$  was considered significant.

**Results:** Total of 80 patients were included in study. Among all 80(100%) patients, there were 24 (30%) males and 56(70%) females. Mean age of patients was  $34.9\text{ years} \pm 9.4$ . A significant association of recurrence at 2 weeks ( $P=0.01$ ) and recurrence at 4 weeks ( $p=0.001$ ) was found between two interventional groups. However, no significant association was found with age, gender and the duration of disease ( $p>0.05$ ).

**Conclusion:** Functional endoscopy sinus surgery is an effective treatment option in terms of lower rate of nasal polyp(s) recurrence as compared to conventional intranasal polypectomy.

**Key words:** Polyposis, Intranasal Polypectomy, Functional Endoscopic Sinus Surgery

## **71. Association Of Different Haematological Parameters And Lipid Profile With Blood Glucose**

## Regulation In Type 2 Diabetes Patients

Dr.Sualeha Ahmed

### **INTRODUCTION:**

Diabetes is characterized by chronic hyperglycemia with disturbances of carbohydrate, protein and lipid metabolism. Disorders of lipid metabolism are common in diabetes causing greater cardiovascular risks. Leukocytosis is a major marker of metabolic syndrome. Both neutrophil to lymphocyte ratio (NLR) and platelet to lymphocyte ratio (PLR) are related to subclinical inflammation worsening the glycemic control. HbA1c is used as a marker of blood glucose regulation.

### **OBJECTIVE:**

To investigate the association of different haematological parameters and lipid profile with blood glucose regulation in patients with type 2 diabetes mellitus.

**METHODS:** This comparative analytical study was conducted in Shifa International Hospital on diabetic patients. Sample size was calculated as 62 by WHO sample size calculator. Non randomized convenient sampling was used. Patients were divided into two groups according to HbA1c level taking 7% as cut off point. Full blood count, lipid profile and liver profile were done. Data was analyzed by SPSS version 21. Descriptive statistics were calculated for categorical variables. For quantitative normal and dispersed variables, independent student t and Mann Whitney U test were applied respectively. P Value less than 0.05 was considered significant.

**RESULTS:** Out of total 93 patients 33 (35.4%) were males and 60 (64.5%) were females. The mean duration of disease was  $7.61 \pm 5.8$ . NLR and PLR were elevated in patients having poor glucose control but that difference was not significant. Significant difference between the groups was found with random blood glucose. LDL, triglycerides, cholesterol ratio, ALT and AST were raised in patients having poor glycemic control.

**CONCLUSION:** Patients having poor blood glucose regulation have increased levels of haematological and serological parameters posing greater cardiovascular health risks to patients with type 2 diabetes.

## 72. Correlation of Biochemical Profile at Admission with Severity and Outcome of COVID-19

Dr. Javeria

**Background:** COVID-19 was detected in China in December 2019. The rapid dissemination and novelty of the disease resulted in an epidemic. This study aimed to identify at admission biochemical parameters that can be used to categorize severity and outcome of COVID -19 infection.

### **Materials and Methods:**

This cross-sectional study was conducted at Allied Hospitals of RMU from April 2020 to July 2020. It included 128 randomly selected confirmed COVID-19 patients. At admission biochemical profile (total bilirubin, alanine aminotransferases {ALT}, aspartate aminotransferases {AST}, urea, creatinine, uric acid, sodium, potassium, and chloride) were correlated with severity and outcome of COVID-19 employing t-tests and ANOVA where required. Cut off value to predict disease severity and outcome were calculated using ROC curve.

#### **Results:**

The study comprised 46.1% non-severe, 29.7% severe, and 24.2% critical COVID-19 patients. 84.4% patients improved and 15.6% expired. Urea was increased in critical disease patients ( $p < 0.000$ ). Higher ALT ( $p 0.030$ ), and AST ( $p 0.004$ ) levels were noted in severe and critical disease. Sodium ( $p 0.001$ ) and chloride ( $p 0.026$ ) were decreased in critical disease. Patients who expired had increased urea ( $p 0.000$ ), ALT ( $p 0.040$ ) and AST ( $p 0.002$ ). At admission urea  $>42.7$  mg (sensitivity of 64.7%, specificity of 87.5%), AST  $>43.5$  IU/L (64% sensitivity, 60% specificity), and sodium  $<136.9$  mmol/L (sensitivity of 70.6%, specificity of 71.2 %) predicted critical COVID-19 infection.

**Conclusion:** At admission increased urea, AST, and ALT along with decreased sodium can help in identifying COVID-19 patients with severe illness and poor outcome.

**Keywords:** Coronavirus; Alanine aminotransferase; Aspartate aminotransferase; Urea

### **73. Effect of IL-28 B Polymorphisms on Early Virological Response (EVR) in Chronic Hepatitis C Patients Treated with Interferon and Ribavirin**

**Dr. Madeeha Nzazar**

**INTRODUCTION/OBJECTIVE:** To determine the frequency of EVR in chronic hepatitis C (CHC) patients treated with Interferon and Ribavirin and to compare the effect of IL-28B SNP rs12979860 (CC and non CC genotypes) on frequency of EVR.

**METHODS:** In this cross-sectional study 100 patients with Chronic Hepatitis C (CHC) with genotype 3 who received Interferon and Ribavirin in the standard doses were categorized in two groups depending upon the IL-28B SNP rs12979860 CC and non CC genotypes. Results of Qualitative PCR for HCV RNA after 12 weeks of treatment and EVR were entered. Frequency of EVR in the two groups (CC and non CC) was compared.

**RESULTS:** Among the 100 patients with Chronic Hepatitis C treated with Interferon and Ribavirin, 72 patients achieved EVR (72%). Out of the 100 patients, 52 had CC genotype and 48 had non-CC genotype (40 with CT and 8 with TT genotype). In the CC group 47 out of 52 patients achieved EVR (90%) while in the non-CC group 25 out of 48 patients achieved EVR (52%). The p value in our study was 0.00

**CONCLUSION:** The frequency of EVR is 72% in Chronic Hepatitis C patients infected with genotype 3 treated with Interferon and Ribavirin which is comparable with

Pegylated Interferon and Ribavirin. Patients with IL-28B SNP rs12979860 CC genotype have a better chance to achieve EVR (90%) as compared to the non-CC genotype (52%).

**KEY WORDS:** IL-28 B Polymorphisms, Early Virological Response, Chronic Hepatitis C, Interferon, Ribavirin

#### **74. Diagnostic accuracy of transient elastography for early detection of hepatocellular carcinoma in viral etiology related liver cirrhosis**

**Dr. Nida Anjam**

**Background:** Hepato-cellular Carcinoma (HCC) is a serious disease that is consistently increasing among the population of third world countries. Due to scarcity of tools to detect HCC at an early stage it is resulting in high morbidity and mortality. This study was planned to bring a new method for early diagnosis of HCC.

**Objective:** To determine the diagnostic accuracy of Transient Elastography for the early detection of HCC in viral etiology related liver cirrhosis keeping Dynamic Computed Tomography as a gold standard.

**Methods:** This was a cross sectional study carried out for a duration of six months. Patients with diagnosis of cirrhosis secondary to HBV and HCV were enrolled

for this study irrespective of their age and gender. Detailed history, physical examination and biochemical measurements were recorded. Patients underwent Transient Elastography and Dynamic Triphasic CT scan to see HCC.

**Results:** Hundred and forty-four patients fulfilling the inclusion criteria were included in this study. There were 79 (54.9%) males and 65 (45.1%) females. The mean  $\pm$  standard deviation age of study population was  $44.01 \pm 10.270$  years. On analysis of demographic data, it was observed that 73 (50.7%) were below 45 years of age & 71 (49.3%) were above 45 years of age. Based on these results, while taking CT scan as the gold standard, the sensitivity of Transient Elastography for diagnosis of HCC was found to be 64.47%, specificity 80.88%, positive predictive value 79.03% and negative predictive value 67.03%. While diagnostic accuracy of test was 72.2%

**Conclusion:** Our study shows that Transient Elastography can be used as a simple non-invasive test for early identification of HCC in patients with viral etiology cirrhosis.

**Keywords:** Chronic liver disease, Hepatitis B Virus, Hepatocellular carcinoma (HCC), Transient Elastography

## 75. Prevalence and Biochemical Associations of Fever in Adults With Reverse Transcription Polymerase Chain Reaction Proven Coronavirus Disease Presenting at Tertiary Care Hospitals in Rawalpindi

**DR. FARAMARZ KHAN**

**Background;** Clinically most apparent symptoms of COVID-19 include fever and cough, which in some patients show a worsening trend but are completely non-apparent in patients who present with an asymptomatic course of the disease. The aim of this study was to identify clinical and biochemical differences among polymerase chain reaction (PCR) positive patients who are either febrile or afebrile.

**Methods;** This study was conducted in Rawalpindi Medical University and Allied Hospitals between September and December 2020. All patients who tested positive for reverse transcription polymerase chain reaction (RT-PCR) COVID-19 were included in the study. After evaluation of 146 patients, 100 were selected, and with a response rate of 97%, a total of 97 patients were included in the

final analysis. Depending on the presence of fever, the participants were divided into two groups. Both groups were then compared for baseline vitals and laboratory investigations. Data was entered and analyzed in SPSS v23.0 (IBM Inc., Armonk, New York).

**Results:** Among the 97 patients, 66 (68%) of the participants were male, and 31 (32%) were females. The mean age of the study participants was  $45.23 \pm 18.08$  years. Fever was present in 39 (40.2%) of the participants. When compared with patients with no fever, the patients with fever had greater severity of disease ( $p < 0.001$ ), higher heart rate ( $p < 0.001$ ), decreased oxygen saturation ( $p < 0.001$ ). Among the laboratory investigations, the fever group had a greater tendency of having deranged alanine aminotransferase (ALT) ( $70.82 \pm 29.23$  vs.  $32.83 \pm 16.22$ ,  $p = 0.010$ ), Lymphocytes ( $1.56 \pm 0.54$  vs.  $2.12 \pm 0.94$ ,  $p = 0.003$ ) and serum total bilirubin ( $1.06 \pm 0.36$  vs.  $0.55 \pm 0.21$ ,  $p = 0.009$ ). Based on multiple regression analysis, the presence of fever is a predictor of derangement in ALT (OR=1.034, CI=1.001-1.068  $p = 0.025$ ) and total bilirubin (OR=4.38, CI=2.14-6.78,  $p = 0.021$ ).

**Conclusion;** Fever may not be present among all patients presenting with COVID-19 infection, but those who have a fever have a greater risk of having deranged liver function tests. Hence, it is important to monitor liver function tests (LFTs) in COVID-19 patients presenting with fever.

**Keywords:** covid-19, fever, alt (alanine aminotransferase), total serum bilirubin, real-time PCR.

## **76. Diabetes Mellitus and its impact on Quality of life**

Dr. Saima Mir

### **ABSTRACT**

**Objectives:** To narrate the characteristic of life of patients having type II Diabetes mellitus (DM2) & the factors influencing it.

### **Methods**

This was a cross-sectional study. Patients with diabetes mellitus type 2 (DM2) who were over the age of 18 were chosen. Age, gender, profession, matrimonial status, time of type two diabetes development, other diseases, depressive status were all evaluated as factors that affect quality of life (Beck Depression Inventory). A (HRQOL) scale was utilized to assess the

quality of life by using the thirty-six-item short-form survey (SF-36). Based on their SF-36 patients were separated into three groups

**Results:** One thousand three hundred and ninety four samples had a middle phase of 62 years. An average score of 50.1 was assigned to the global HRQOL. According to bivariate analysis, phase, matrimonial status, gender, employment, comorbidities, DM2 duration, and other diseases all had an effect on HRQOL. In the regression model (logistic), age (OR 1.04) and depression (OR 4.4) were identified as independent factors that influenced overall quality of life.

**Conclusion:** The HRQoL of DM2 patients is lower, which is associated to a higher risk of depression. The presence of depression and advanced age have a negative impact on the patient's HRQoL.

**KEYWORDS:** Type II Diabetes Mellitus, Beck Depression score, HRQOL scale.

## **77. Pattern Of Thrombocytopenia With Timings Of Plasma Leakage In Patients Presenting With Dengue Haemorrhagic Fever During Dengue Epidemic 2019 –**

## An Experience From Rawalpindi Medical University

**Dr. Javeria**

**BACKGROUND:** Dengue fever is an arthropod borne infection responsible for major epidemics involving Pakistan and South-Asia over past few years. Plasma leakage leading to shock is the most dreaded manifestation of the disease.

**AIM:** This study was designed to collect evidence about timing and pattern of plasma leakage with pattern of thrombocytopenia in patients presenting with dengue hemorrhagic fever during dengue epidemic 2019 in Rawalpindi city.

**MATERIAL AND METHODS:** This was a cross-sectional study conducted at Department of Medicine, District Head Quarter Hospital, Rawalpindi, Pakistan from August to November 2019 in which patients who were labeled and managed as dengue hemorrhagic fever on the basis of clinical presentation, positive serology and ultrasonographic evidence of plasma leakage were included. Demographic profile, clinical features with duration, laboratory investigations including serological tests and ultrasonographic findings of all patients were recorded on a self-structured proforma. Data was analyzed by SPSS v23.0.

**RESULTS:** 295 patients with dengue hemorrhagic fever were enrolled in the study. There were 212 males and 83 females (male to female ratio of 2.5:1). Mean age of all participants was 35.99 years (range 13-75 years). 38.3% Patients were having platelet count more than 80,000/ul at day of

leakage, 45.8% were having platelets between 40,000/ul to 80,000/ul, and only 14.5% patients were having platelets less than 40,000/ul at day of leakage. However, 65.9% patients showed evidence of plasma leakage on ultrasound between 4th to 7th day of illness, and 17.3% between 8th to 10th day of illness respectively. On the basis of Serology & NS1 antigen 50.2% of our DHF patients were labelled as primary dengue infection and 39% were labelled as secondary dengue. While 10.5% of our patients had triple negative dengue serology/NS1 but were labelled as dengue hemorrhagic fever patients on the basis of clinical presentation and evidence of plasma leakage on ultrasonography. 49.8% of four patients had pleural effusion, 30.5% had ascites, while 18% had evidence of both ascites and pleural effusion on ultrasound. Gall bladder wall thickness was observed only in 1.7% patients.

**CONCLUSION:** Most of the patients at day of leakage were having platelet counts between 40,000-80,000 /ul. However most common days of leakage was observed between 4th to 7th day of illness. Thus suggesting early hospitalization and strict monitoring during this period. Plasma leakage was observed more commonly in primary as compared to secondary infection. Continued studies into the pathogenesis and prognosis of patients with DHF are warranted.

**KEYWORDS:** Plasma leakage, Thrombocytopenia, dengue hemorrhagic fever.

## **78. Intra-abdominal Hypertension and Abdominal Compartment Syndrome in patients undergoing emergency laparotomy**

Dr. Muhammad Waqas Raza

**Objective:** The objectives of the Prospective observational study were to identify the frequency of abdominal compartment syndrome and intraabdominal hypertension in patients undergoing emergency laparotomy for trauma and peritonitis and to determine the impact of raised intraabdominal pressure on the overall morbidity and mortality.

**Materials and Methods:** The study was conducted in the department of surgery Benazir Bhutto Hospital Rawalpindi. From June 2013 to May 2014 a total of 50 patients undergoing emergency laparotomy were included. IAP was measured preoperatively then postoperatively at 0, 6, 24 hours, and the findings were recorded on a specially designed preform. The patients having higher IAP were further evaluated up to 72 hours. All vitals, urine output, oxygen saturation, serum urea, creatinine were noted. The main outcomes were duration of hospital stay, the occurrence of burst abdomen, and mortality.

**Results:** At the preoperative level the incidence of IAH was 86%. The mortality association with IAH at 6 hours postoperatively was quite significant ( $P < 0.029$ ). The incidence of postoperative ACS was 5% among the total patients and it

was 15.6% in trauma patients. No significant association was found between IAP and occurrence of burst abdomen at any level ( $P$  values 0.4, 0.26, 0.53, 0.58 at intervals preoperatively, 0, 6, 24 hours postoperative respectively).

**Conclusion:** Intraabdominal pressure is an important factor that predicts the mortality of patients undergoing emergency laparotomy. It should be carefully monitored and managed accordingly to avoid the detrimental effects on virtually all organ systems. Abdominal decompression in significantly elevated intraabdominal pressure reverts the physiological derangement of Intraabdominal hypertension.

## **79. Cognitive disposition to respond in postgraduate trainees of general surgery at Rawalpindi Medical University**

Dr. Malik Irfan Ahmad

**Introduction:** Cognitive biases leading to diagnostic errors are associated with adverse outcomes and compromise patient safety and contribute to morbidity and mortality. Exploration and identification of cognitive biases have been a difficult task for the clinicians and medical educators. The literature is deficient in the identification of cognitive biases in surgical trainees. The objective of the study was to identify various cognitive biases that may negatively impact clinical reasoning skills and lead to

diagnostic errors in trainees of general surgery.

**Materials and Methods:** A quantitative study was conducted involving 48 trainees of general surgery to explore the various cognitive biases. The questionnaire was devised and consisted of ten items devised to explore five biases. Descriptive statistical analysis was done on SPSS 20 and the respondents with score >25 were categorized as predisposed to error scores of 20-25 were taken as a borderline and overall score of <25 was insignificant for the presence of cognitive bias.

**Results:** Premature closure was the most frequent cognitive bias found significant in 34 (70 %) of trainees followed by anchoring bias in 14 (58, 3 %) trainees. The relative frequencies of different biases are shown in Table 2. The mean score of the questionnaire was 22.7 (range 10 to 38) SD 7.2. Ten out of forty-eight (21%) trainees with a mean score of >25 showed a clear inclination toward cognitive errors whereas 11 (22%) with a score in the range of 21 to 25 were categorized as having an equivocal tendency towards committing an error, Whereas 27 (56%) with a score of less than 20 were less prone to cognitive errors.

**Conclusion:** The two most common errors seen in the study were anchoring bias and premature closure and both are related to information gathering. A larger study is required to explore the association of cognitive bias with different specialties and experience of clinicians.

## 80.Level Of Awareness About Breast Cancer Among Females Presenting To A Tertiary Care Hospital In Pakistan

Dr. Faiza Firdous

**Introduction:** Breast cancer is a deadly disease and one of the commonest cancers of the females not only in the western world but also in Pakistan. It is a well established fact that early detection and treatment of breast cancer has a better prognosis. Unfortunately majority of our patients are still presenting with advanced stages of the disease due to different factors one of which is unawareness. The purpose of the study was to find out the level of awareness about breast cancer, their misconceptions about it and the factors leading to their late presentation to the hospitals.

**Patients and Methods:** A two-year descriptive study was carried out on female patients presenting at a Tertiary Care Hospital with any problem related to breast. 1000 patients were included in the study, out of which 400 patients had some complaints in the breast and 600 without any breast problem. Inclusion criteria were Female patients with any complaints in their breast presenting to the Breast Clinic in the outpatients department and as controls females without any breast problems presenting to the OPD or admitted in the indoor surgery for some other problem. Male patients, females below 13 years and above 80 years, psychiatric and moribund patients were excluded. A female doctor interviewed each patient individually. To

reduce a bias, a Performa was specially designed to be filled up by the female doctor.

**Results:** More than half (55%) of those who were highly educated according to our standards were totally ignorant about the disease although compared to the illiterate (82% ignorant) and the less educated they were more aware. Similarly the level of awareness 55% (ignorant) was dismal in economically better off patients belonging to the upper middle and rich class, who are much more exposed to the information through newspapers and the electronic media. Only 31.8% patients understood the importance of a 'lump' in the breast. 62.8% did not think that it was serious or in

any way life threatening. 87.5% of these 1000 females had no idea what BSE is or what was its significance. 73% were totally ignorant about the disease, 21.55 % were partly aware. Only 5.55% were fully aware about the deadly consequences of breast cancer.

**Conclusion:** This study concluded that since the level of awareness about breast cancer is very low in our population, there is dire need of mass education through electronic and news media which should be carried out with simple language articles and shows.

**Keywords:** *Breast Cancer, Breast lump, awareness among females*



# POSTER PRESENTATIONS



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## 1. Association of hyperglycemia at admission within-hospital mortality and severity of illness among patients with COVID-19.

*Sadaf Zaman*

**Objectives** :The association between hyperglycemia at admission and COVID-19 severity and in-hospital mortality is an area of active medical research. Our study aims to explore this association across diabetics and hyperglycemic patients while keeping normoglycemic patients as control.

**Methods** : This retrospective cohort study involved a total of 90 patients with confirmed diagnosis of COVID-19 infection. Patients were divided into three equal groups based on their history and BSR levels (diabetics, hyperglycemic, normoglycemic). Various laboratory parameters and inflammatory markers were compared across the study groups using Kruskal Wallis test. Finally, chi-square test was use to assess the association of severity and mortality across the study groups.

**Results** : Out of 90 patients, 38 (42.2%) were males with a mean age of  $57.1 \pm 14.7$  years. Serum ferritin, LDH and lymphocyte levels were significantly higher in diabetics and hyperglycemic patients than in normal COVID-19 patients ( $p < 0.05$ ). hyperglycemia at admission was significantly associated with disease severity ( $p = 0.03$ ) but not with in-hospital mortality ( $p = 0.07$ ).

**Conclusion** : Patients with diabetes and stress hyperglycemia have increased levels of inflammatory marker than normoglycemic patients. Hyperglycemia at admission is associated with poor COVID-19 severity. More studies a required to validate and further explore this relationship.

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### 3. Diabetes Mellitus and its impact on Quality of life

*Dr. Saima Mir*

**Objectives:** To narrate the characteristic of life of patients having type II Diabetes mellitus (DM2) & the factors influencing it.

**Methods :** This was a cross-sectional study. Patients with diabetes mellitus type 2 (DM2) who were over the age of 18 were chosen. Age, gender, profession, matrimonial status, time of type two diabetes development, other diseases, depressive status were all evaluated as factors that affect quality of life (Beck Depression Inventory). A (HRQOL) scale was utilized to assess the quality of life by using the thirty-six-item short-form

survey (SF-36). Based on their SF-36 patients were separated into three groups

**Results:** One thousand three hundred and ninety four samples had a middle phase of 62 years. An average score of 50.1 was assigned to the global HRQOL. According to bivariate analysis, phase, matrimonial status, gender, employment, comorbidities, DM2 duration, and other diseases all had an effect on HRQOL. In the regression model (logistic), age (OR 1.04) and depression (OR 4.4) were identified as independent factors that influenced overall quality of life

### 4. Reasons for Non-compliance with medication and Disease severity among heart failure patients at Benazir Bhutto Hospital Rawalpindi

*Dr. Asad*

- Heart failure is a silent epidemic that is growing exponentially among both genders.
- **Objectives:** To determine the reasons for non-compliance with medication and severity of illness among heart failure patients.
- **Methods:** A cross-sectional descriptive study was done among 277 heart failure patients who visited Cardiology department of Benazir Bhutto Hospital during 2020 and enrolled in study through consecutive non-probability sampling. Data was gathered pertinent to demographics, hospital stay, comorbidities, drug compliance, physical activity and

reasons for expiry. Severity of disease was categorized by using NYHA classification. Variations in mean age of the both genders and length of hospital stay between recovering and expiring patients were statistically determined by independent sample t-test. P-value  $\leq 0.05$  was taken significant. 95% CI were also computed.

- 
- **Results:** Of the 277 patients, 56% and 44% were males and females respectively with mean age  $56.5 \pm 15.9$  years. Most (65.7%) were illiterate. There was significant difference (P 0.003) (95%CI (1.85 – 9.35) in mean age of both genders. About 71.8% and 25.6% patients belonged to low and middle social class respectively and 68% of them were non-compliant with medication. 59.3% were non-compliant due to unawareness while 23.4% and 15.9% had non-compliance due to non-affordability and adversity of medicines respectively. Out of 15 expiring cases, 13 succumbed to cardiac arrest. Mean length of hospital stay was  $5.92 \pm 3.7$  days. About 122 and 112 cases were in NYHA heart failure class III and IV respectively.
- 

**Conclusion:** Incognizance about the medication was the prime reasons for non-compliance

## 5. In-Hospital Outcomes Of Patients Presenting With Acute Anterior Stemi With Right Bundle Branch Block

*Dr. Asad*

- **Objective:** To assess the in-hospital outcomes in Anterior wall ST Elevation Myocardial Infarction patients presenting with Right Bundle Branch Block with different reperfusion strategies.
- **Place and Duration of Study:** Department of Cardiology, Rawalpindi Institute of Cardiology from Sept 2020 to Feb 2021
- **Patients and Methods:** Patients with myocardial infarction who presented to the emergency department of the hospital were included in the study. Further evaluation was performed on individuals with ST elevation in anterior chest leads and new-onset or presumably new Right bundle branch block on electrocardiogram. Anterior wall myocardial infarction was diagnosed based on 4th universal definition of Myocardial infarction. Patients excluded were those with non-anterior ST-elevation myocardial infarction, prior coronary artery bypass grafting, previous percutaneous coronary intervention, or Left bundle branch block. The treatment plan was chosen by the interventional cardiologist. Various parameters were used to measure the outcomes of different therapies.
- **Results:** 93 patients were included with 72 (77.4%) males. Mean age was  $59.91 \pm 11.93$  years. Premorbid seen was 41.9% diabetes, 32.3% hypertension, 18.3% smoking. Transient RBBB was seen in 64.5% of the study population. Mortality was associated with higher Killip class ( $p = < 0.001$ ), AV block ( $p = 0.078$ ), increased no of coronary vessels

involved ( $p = 0.014$ ), increased amplitude of ST elevation ( $p = 0.083$ ) and with lower EF values ( $p = 0.032$ ). Worst outcomes were common in patients on medical treatment.

- **Conclusion:** Poor outcomes in Anterior Wall Myocardial Infarction with Right Bundle Branch Block are linked to length of stay, co morbidities, Killip class, amplitude of ST elevation, coronary artery disease complexity and those managed on medical treatment.

## 6. Assessment Of Anxiety And Depression In Covid-19 Patients Admitted To Rmu and Allied Hospitals Rawalpindi Pakistan.

*DR ASAD TAMIZUDDIN*

**Objective:** This study aims to determine the prevalence of anxiety and depression among the COVID-19 infected patients admitted to RMU and Allied hospitals Rawalpindi

**Study design:** descriptive cross-sectional study

**Place and duration of study:** Rawalpindi medical university and allied hospitals covid designated wards

**Patients and methods :** descriptive cross sectional study conducted between April 2019 and June 2020 , data was collected using questionnaires on physical parameters including medical comorbidities and listed physical symptoms The patients were interviewed based on ICD 10 diagnostic criteria of Depression and Anxiety .Those patients who fulfill the clinical criteria

Hamilton rating scale for Anxiety (HAMA) and Hamilton rating scale for Depression (HRSD) were applied to assess the severity of anxiety and/or depression, data was analyzed using SPSS

**Results:** Among the sample of hundred admitted COVID-19 patients 69% (69) were males and 31% (31) were females. 82% (82) of the patients fall in the age range of 21 to 50 years with the mean of 38 years.

Overall, there is high level of anxiety as well as depression among admitted patients suffering from COVID-19. Overall, 75 % (75) patients suffered from depression and 72 % (72) of patients suffered from anxiety ranging from mild to severe. It was found that Patients suffering from ischemic heart disease, diabetes mellitus and hypertension showed higher anxiety and depression as compared to patients suffering from Asthma, Chronic obstructive pulmonary disease (COPD), TB and renal failure.

**Key words:** covid 19, anxiety and depression, physical comorbidities

## 7. Ventricular Tachycardia as a first presentation of Arrhythmogenic Right Ventricular Cardiomyopathy (ARVC) in a previously asymptomatic Sexagenarian

*Dr. Asad*

Arrhythmogenic right ventricular dysplasia/cardiomyopathy (ARVD/C) is characterised by morphological and

histological changes in the ventricles. Progressive myocyte loss and fibrofatty tissue replacement, producing islands of scar, can lead to reentrant ventricular tachycardia and sudden cardiac death. It usually presents as chest pain, palpitations, heart failure, or syncope. The majority of cases are seen before the age of 40. Ventricular arrhythmia as a first presentation in the elderly is seen infrequently. We present a case of a previously asymptomatic 62-year-old gentleman who had an episode of ventricular tachycardia as the first manifestation of ARVC without having any positive family history for this disease. He was managed with amiodarone and was later planned for an implantable cardiac defibrillator (ICD).

## **8. Quality Care through Clinical Audit: Time to ECG of Patients presenting with Chest Pain in The Emergency Department of A Tertiary Care University Affiliated Teaching Hospital, Pakistan**

*Aimen Malik*

**Introduction:** The audit was undertaken when it came to observation that ECGs were not performed timely in patients with chest pain. The aim was to assess the time taken in performing an ECG and whether it was in line with the guidelines laid out by the European Society of Cardiology Guidelines: Patients presenting to emergency department with acute chest pain should have an ECG recording within 10 minutes of registration.

**Methodology:** Patients presenting with chest pain to the ED for the first time were audited. Time was measured from generation of Patient Encounter Slip till performance of ECG by on duty Nurse. Retrospective approach was selected, and all such patient presenting over a 10-day period in July 2021. Data was obtained from maintained ECG register for female patients, thus the entire study population was female. An Departmental meeting was called to identify hindrances and formulate an action plan. Reaudit was conducted in Aug 2021 over a similar period of time, once interventions had gone into effect.

**Results:** Initially a total of 103 patients were audited. Post Intervention, 67 patients were included over the duration of time. The mean time to ECG overall was 20mins, and shift wise was 15mins, 27mins and 19mins for morning, evening and night shifts, respectively. Following intervention, the mean time to ECG overall was 19mins, and shift wise was 22mins, 19mins mins and 13 mins for the morning, evening, and night shifts respectively. While the time to ECG was reduced by a minute overall, an independent sample T-test revealed the reduction to be non-significant with a negligible effect size

**Conclusions:** Patients did not get an ECG within 10mins of reaching the ED. While Departmental efforts can expedite the process for such patients, hospital-level interventions and infrastructure changes are required.

### **Quality Care through Clinical Audit: Blood sampling Practices by Nurses in The Emergency Department of A Tertiary Care University Affiliated Teaching Hospital, Pakistan**

*Aimen Malik*

**Introduction:** Phlebotomy has the potential to expose health workers and patients to blood from other people, putting them at risk from blood borne pathogens. The aim was to assess the steps of phlebotomy/venipuncture performed by nurses in the ED and whether they were in line with the guidelines laid out by the World Health Organization (WHO).

**Methodology:** Nurses in the ED were audited prospectively over a 7-day period during July 2021. Medical students, Nursing Students and Doctors were excluded. Subsequently, WHO Phlebotomy Guidelines were consulted and interventions in the form on training sessions, visual cues, better availability of equipment, and the formation of Departmental Health Team were implemented. This was followed by a reaudit in Aug 2021

**Results:** A total of 54 instances of blood sampling were observed during the initial audit; A total of 58 observations were made following interventions. There was a varying degree of compliance to the steps of phlebotomy, with hand hygiene (missed n=45, 83%) and use of sterile gloves (missed n=54, 100%) being missed frequently. Following interventions, Hand Hygiene (missed n=36, 62%) and use of gloves

(missed n=33, 56%) saw an overall significant improvement ( $p < 0.05$ ).

**Conclusions:** While strict adherence to the steps of Phlebotomy cannot be achieved, interventions outlined in the WHO Guidelines lead to significant improvement in overall compliance. As such, regular monitoring and interventions are imperative.

Aimen Malik (Holy Family Hospital, Rawalpindi)

### **9. Quality Care through Clinical Audit: Hand Hygiene Practices Among Healthcare Workers in The Emergency Department of A Tertiary Care University Affiliated Teaching Hospital, Pakistan**

*Mirza Aun Muhammad Baig*

**Introduction:** Hand hygiene is the most important way of preventing health care associated infections. The World Health Organization (WHO) has provided WHO Multimodal Hand Hygiene Improvement Strategy Guidelines, which illustrate the steps of Hand Hygiene (hand washing and hand rubbing). The aim of this audit was to assess whether the hand rubbing and hand washing practices of Emergency Department (ED) Health Care Workers (HCW) were in line with the steps laid out by WHO.

**Methods:** Prospective observations were made over a 7 day period in July 2021 at The Department of Emergency Medicine, Holy Family Hospital. Nurses, House Officers, Medical Officers and Postgraduate Trainees in the ED were included, and the steps of their hand washing and hand rubbing practices were observed and compared to the steps laid out in the WHO guidelines. Interventions as laid out in the guidelines were implemented. Repeat observations were subsequently made over a similar time period in August 2021.

**Results:** In the initial audit, 49 instances of hand rubbing and 48 instances of handwashing were observed; Post intervention, 56 instances of hand rubbing and 61 instances of handwashing were observed.

Following interventions, there was an increase in the compliance to the steps of hand rubbing with a decrease in the number of HCWs missing, especially, the steps of rotational thumb rubbing (79% vs 41%;  $p < 0.05$ ) and rubbing of back of fingers (61% vs 26%;  $p < 0.05$ ). Similarly, there was a decrease in the number of HCW missing the steps of rotational thumb rubbing (68% vs 66%;  $p = 0.7$ ) and rubbing of back of fingers (66% vs 44%;  $p = 0.05$ ) during handwashing.

**Conclusions:** The use of the WHO Multimodal Hand Hygiene Improvement Strategy Guidelines improved the adherence to the steps of Hand Hygiene. Continuous monitoring and repeated interventions are required to further improve practices.

## 10. Topical Application of 0.5% Timolol Maleate Hydrogel for the Treatment of Superficial Infantile Hemangiomas

*Shawana Sharif*

**Background:** Oral propranolol is considered the first line therapy in the treatment of infantile hemangiomas (IHs). However, there are considerable side effects due to its ability to penetrate the blood brain barrier. Alternatively, topical timolol, a non-selective beta blocker, has resulted in fewer side effects and is 4-10 times more potent in comparison to oral propranolol. This study evaluates the efficacy of 0.5% timolol maleate hydrogel for the treatment of IH.

**Methods:** This study was conducted via a quasi-experimental design from October 30, 2020- April 29, 2021 at the Department of Dermatology Benazir Bhutto Hospital, Rawalpindi. 145 infants between 1-12 months in age diagnosed with superficial cutaneous hemangiomas were included in the study with a male to female ratio of 2.4:1. A thin layer of timolol maleate 0.5% hydrogel was applied to the entire surface of the patient's IH three times daily. Digital photographs and measurements of the hemangiomas were taken at one-month intervals for a maximum of 6 months.

**Results:** The age range in this study was from 1-12 months with a mean age of  $6.10 \pm 2.52$  months. The majority of the patients 89 (61.4%) were between 1-6 months of age. Of the 145 patients, 89 (61.4%) showed an excellent response, 44 (30.3%) showed a good response, and 12 (8.3%) showed no

response to the topical 0.5% timolol maleate hydrogel treatment.

**Conclusion:** The use of topical 0.5% timolol maleate hydrogel is a promising therapeutic option for the treatment of superficial IHs.

## 11. Gallstone ileus (GI), A rare cause of small bowel obstruction

*Dr Sidra Mehmood Dar*

**INTRODUCTION:** Gallstone ileus is a rare cause of mechanical small bowel obstruction. It accounts for 1-3% of all mechanical bowel obstruction cases. It is characterised by bowel lumen occlusion due to gallstones. Most common sites are terminal ileum and jejunum.

**CASE REPORT:** 45yr-old female presented in surgical emergency with 5 days history of Vomiting and Abdominal pain. She underwent Open subtotal cholecystectomy from a hospital in periphery 6days ago but symptoms didn't relieve. On examination abdomen was distended and tympanic with hyperdynamic bowel sounds on auscultation. CT scan abdomen showed impacted gallstone in distal ileum with small bowel obstruction. Patient was resuscitated and shifted to OT for exploration. Peroperatively there was large gallstone (5cm x 4cm x 4cm) 2 feet from ICJ completely occluding the lumen. There was a cholecystoduodenal fistula through which contents were leaking into the abdomen. Enterotomy was performed,

Gallstone removed, ileum repaired and Fistula closed by placing omentum. Postoperative course was uneventful and patient was discharged on 6<sup>th</sup> postoperative day.

**DISCUSSION:** Gallstone ileus constitutes < 5% of cases(1). It is preceded by attack of acute cholecystitis that causes inflammation and adhesion formations between gallbladder and bowel usually duodenum, forming bilioenteric fistula(2). It presents as vomiting, Abdominal pain and distention(3,4). It is diagnosed classically by Rigler's triad, which includes pneumobilia, intestinal obstruction and aberrant gallstone in intestine(5). Surgical management of Gallstone ileus is controversial and includes; one stage, two stage and single enterolithotomy(6). One stage procedure manages obstruction (enterotomy), cholecystectomy and fistula closure at the same time. Two stage procedure differs with cholecystectomy and fistula closure after 4-6 weeks of initial procedure. Single enterolithotomy addresses the obstruction and leaving fistula to heal (6).

## 12. Laparoscopically delivered TAP block: a novel technique in post-operative pain management after laparoscopic cholecystectomy

*Dr. Syed Waqas Hasan*

**INTRODUCTION:** laparoscopic cholecystectomy is the most common procedure performed by a general surgeon

and is now offered as a day case surgery. Paramount to day case surgery is adequate post-operative pain management, for which TAP-block offers a useful adjunct. We propose laparoscope assisted 2-point TAP-block for elective laparoscopic cholecystectomy and compare it with port site wound infiltration with local anesthetic using visual analogue scale for pain.

**Material & Methods:** A Randomized controlled double-blind trial carried out in Surgical unit 1, holy family hospital, Rawalpindi. 60 patients were enrolled that were divided into two groups. Group A patients were treated with laparoscopic TAP-block technique and group B with periportal local anesthetic wound infiltration. After laparoscopic cholecystectomy the post-operative pain score at 1<sup>st</sup>, 6<sup>th</sup>, 12<sup>th</sup> & 24<sup>th</sup> hours were noted. All the collected data was entered and analyzed on SPSS version 22.

**Results:** In this study the mean age of the group A patients was  $38.77 \pm 13.037$  years while the mean age of the group B patients was  $45.87 \pm 12.65$  years. Male to female ratio of the patients was 0.2:1. The mean value of mean post-operative pain score of the group A patients was  $12.20 \pm 5.58$  while the mean value of mean post-operative pain score of the group B patients was  $15.60 \pm 5.16$  ( $p$ -value=0.017).

**Conclusion:** Laparoscopic TAP-block is superior to port site wound infiltration in elective laparoscopic cholecystectomy for post op pain management. Furthermore, it is

easy to perform, does not require additional equipment or radiological personnel and no extra time is required

**Key words:** Laparoscopic cholecystectomy; Visual Analog Scale; Local Anesthetics

### 13. PORTOCAVAL PARAGANGLIOMA: A Case Report

*Dr Asifa*

**Introduction and importance:** To report a case with rare location of paraganglioma with initial presentation similar to Acute appendicitis.

**Case presentation:** A 33 years old male presented with pain Right lumbar region and RIF for one week associated with anorexia.

**Intervention and outcome:** Tumor resection carried out and histopathology done which showed paraganglioma.

**Conclusion:** The location of tumor can lead to its confusion with other lesions located at the same site but thorough workup while keeping the differential in mind can help making the diagnosis preoperatively. This preoperative high index of suspicion helps pre and peroperative management of functional paragangliomas.

### 14. Effectiveness of Bilateral Transforaminal Epidural Steroid Injections in Degenerative Lumbar Spinal Stenosis Patients with

## Neurogenic Claudication: A Case Series

*Dr Soban S Gondal,*

**Background :**As age progresses neurogenic claudication secondary to lumbar central canal stenosis is one of the leading causes of disability in our population and worldwide. The fear of undergoing surgical decompression re-directs patients to less risky alternate treatments. Various studies compare the results of Transforaminal, Interlaminar and Caudal epidural steroid injections for treatment of Lumbar stenosis, but none which employs bilateral injection technique.

**Objective :**To assess the therapeutic value of fluoroscope-guided Bilateral Transforaminal Epidural Steroid injection (BTESI) in patients with neurogenic claudication (NC)secondary to Central canal variety of Degenerative Lumbar Spinal Stenosis (DLSS)

**Design :**Case series.

**Setting :**Department of Neurosurgery, DHQ Hospital, Rawalpindi Medical University

**Inclusion/exclusion Criteria :** All patients of DLSS with NC aged between 30-70 with radiological confirmation, presenting to Neurosurgical OPD with no previous history of Spinal surgery are being included for this study.

**Methods/Interventions :** Patients meeting inclusion criteria are receiving fluoroscope-guided BTESI of local anesthetic and steroid at the level immediately below the most stenotic level. Patient self-reported pain level, activity level, and overall satisfaction are being recorded on follow-up visits in OPD and over phone at 1,3 and 6 months.

**Main Outcome Measures :**Numeric Pain score and Swiss Spinal Stenosis score at baseline, 1, 3, and 6 months.

### Results

Will be published at conclusion of study. Study period is 6 months (October 2022-March-2023) and follow up will continue further 6 months. Study will be completed in October 2023.

### Conclusion

Early trends in patients already recruited and in follow up are indicating BTESI showing good results.

## 15.Comparison Of Polyetheretherketone (Peek) Cage Versus Iliac Bone Graft In The Anterior Cervical Discectomy And Fusion.

*Dr Soban S Gondal*

**Introduction:** Anterior cervical discectomy and fusion (ACDF) is a type of neck surgery that involves cervical discectomy to relieve spinal cord or nerve root pressure and alleviate corresponding pain, weakness, numbness, and tingling. For decades Iliac bone graft has been used in this procedure. This study compares the result of PEEK cage with the traditional Iliac crest graft as a substitute.

**Methodology:** This is a prospective comparative study of 70 (35 in each group) patients of symptomatic CSM having degenerative cervical disc disease who were planned for ACDF from Jan-2017 to Jan-2022 in Rawalpindi Medical University. All the

procedures were performed under general anesthesia with a written consent.

Radiological and surgical outcomes were determined after a 6 months follow-up.

**Results:** The baseline study characteristics were the same between the two groups. Mean modified Japanese Orthopedic score was the same for both the groups at 6 month follow up;  $14.16 \pm 4.30$  in group A and  $13.54 \pm 3.24$  in group B (p-value 0.49). Disc space height at follow-up was also similar between the groups;  $10.01 \pm 0.67$  mm in group A versus  $10.11 \pm 0.70$  mm in group B (p-value 0.54). Fusion rate at final follow-up was 31 (88.6%) in group A versus 30 (85.7%) in group B (p-value 0.72).

**Conclusion:** PEEK cages have similar functional and radiologic outcomes in comparison to iliac crest allografts. So, PEEK cages can be used as a successful alternative to iliac crest allografts this will be help to reduce donor site morbidity and will reduce longer surgical times associated with graft harvesting

## 16. Triplegia secondary to penetrating brain injury ; a unique case report.

*Dr Ali tassaduq*

**Introduction :** Penetrating brain trauma is a major cause of neurological debility & death. While blunt neurosurgical injuries outnumber the mentioned, with modern warfare & sophisticated armamentarium, the dynamic is shifting. pTBI comprises a significant proportion of TBI overall. TBI is the fourth leading cause of death in

population aged 1-44. High velocity injuries with missiles & firearms comprise the bulk of the cohort & low velocity injuries with sharp objects such as knives & kitchenettes remain relatively rare reported often in case reports & small series of patients. The neurological outcome is varied & runs the gamut from disability i.e hydrocephalus, epilepsy, monoparesis etc to immediate mortality. A mortality rate as high as 92 percent is reported.

**Case Summary :** In this case report, we share the case of a 21 year old male patient who sustained pTBI with a hand held knife. On presentation patient sported a good prognosis having a GCS of 14/15 but intriguingly the outcome was grim with triplegia present & the patient left with only one functional limb. The left parietal cortex was the area of insult & was subsequently debirded and closed after extraction. The disability in discord with the per-op findings highlights the unpredictable nature of pTBI & underscores the importance of complex neural connections & interplay. This is the first case report reported in current literature which would put some light on unique presentations of penetrating brain injuries.

## 17. Effect Of Dexamethasone On Post-Operative Pain Management In Patients Undergoing Total Knee Arthroplasty

*Dr. Junaid Khan*

**Objective:** To determine the efficacy of Dexamethasone in post-operative pain management in patients undergoing Total Knee Arthroplasty (TKA)

**Methodology:** This Randomized Controlled Trial (RCT) was conducted for 02 years (7<sup>th</sup> September 2015 to 6<sup>th</sup> September 2019). All patients undergoing primary Unilateral Total Knee Replacement (TKR) for Osteoarthritis knee were included in the study. Patients with poor glycemic control (HbA1c > 7.6), Hepatic/Renal failure, corticosteroids/Immunosuppression drug usage in the last 06 months, known psychiatric illnesses were excluded from the study. All patients were operated by consultant Orthopaedic surgeon under Spinal Anaesthesia and tourniquet control using medial para-patellar approach. Patients were randomly divided into 02 groups; A and B. 79 patients were placed in each group. Group A given 0.1mg/kg Dexamethasone Intravenously 15 minutes prior to surgery and another dose 24 hours post-operatively while in group B (control group) no Dexamethasone given. Post-operative pain using Visual Analog Pain Scale (VAS), functional outcome, length of hospital stay and complications noted on a pre-formed questionnaire. Data analysis done using SPSS version 23.

**Results:** A total of 158 patients were included in the study. Of the total, 98 (62.02%) were females and 60 (37.98%) males. Average BMI of patients  $26.94 \pm 3.14$  kg/m<sup>2</sup>. Patients in group A required less post-operative analgesics ( $p < 0.05$ ), anti-

emetics ( $p < 0.05$ ), better VAS score ( $p < 0.05$ ) and lesser hospital stay ( $p < 0.05$ ) as compared to group B. No post-operative complications were seen in both the groups.

**Conclusion:** Use of Dexamethasone per- and post-operatively reduces the pain, amount of analgesics used and length of hospital stay in patients undergoing TKA.

**Keywords:** Dexamethasone, Total knee arthroplasty, Visual Analog Pain Scale

## 18.Awareness Of Orthopaedic Doctors And Operation Theatre Assistants On Radiation Exposure

*Dr. Junaid Khan*

**INTRODUCTION:** To determine the knowledge of Orthopaedic doctors and operation theatre assistants (OTA) on radiation exposure from fluoroscope; its risks and protective measures.

**METHODS:** This cross-sectional study was conducted using a questionnaire which was distributed among the residents, consultants and operation theatre assistants (OTA) working in Orthopaedic operation theatres of tertiary care hospitals. Centers in which fluoroscope was unavailable were excluded from the study. Questions regarding number of surgeries performed/assisted in a week, number of surgeries in which fluoroscope

used, average number of times fluoroscope image taken in a week during surgeries, information about the usage of fluoroscope, are you using a dosimeter, do you know about the hazards of radiation, how do you protect yourself from radiation, have you ever had any symptoms of radiation sickness, etc. Data analyzed using SPSS version 23.

**RESULTS:** A total of 305 (60.4%) Orthopaedic trainees, 80 (15.8%) and 120 (23.8%) operation theatre assistants were included in the study. Average no. of surgeries performed/assisted in a week were  $n=18$ , and in an average no. of 12 (66.7%) a fluoroscope was used. An average of 41.5 fluoroscope shot/case. Lead apron was the pre-dominantly (93%) used protective item followed by thyroid protector (17%) during fluoroscopy. Fluoroscope was operated by a technician in 79.6% cases while in 20.4% by a nurse.

**CONCLUSIONS:** Fluoroscopy is an important part of Orthopaedic surgeries. Awareness among doctors and OTAs regarding fluoroscope use and its hazards is inadequate. Information about its use and protective measures should be an essential part of each Orthopaedic institute.

## 19. Efficacy of Intra-articular Methylprednisolone Versus Ketorolac in Shoulder Pathologies

*Dr. Junaid Khan*

**OBJECTIVE:** To compare the efficacy of intra-articular Methylprednisolone versus Ketorolac in shoulder pathologies in terms of improvement in range of motion (ROM).

**METHODS:** This randomized controlled trial was carried out between 10<sup>th</sup> April 2019 to 10<sup>th</sup> April 2020 at the Department of Orthopaedics, Benazir Bhutto Hospital, Rawalpindi, Pakistan. The research involved patients aged 20 to 65 years of both sexes who were diagnosed with a specific shoulder pathology and had shoulder pain for at least three months. Patients were randomly distributed into two groups: A and B. Group A patients were infiltrated with Methylprednisolone Acetate injection while those in group B were injected Ketorolac. The ROM of the involved joint was determined using goniometry before and four weeks after injection. The collected data were then statistically analyzed using SPSS.

**RESULTS:** A total of 60 patients finally selected, 38 (63.3%) were male and 22 (36.7%) were female. The mean age was  $44.6 \pm 8.3$  years in group A while it was  $45.2 \pm 7.5$  years in group B. Thirty three (55 %) patients had adhesive capsulitis, 20 (33.3 %) had rotator cuff syndrome and 7 (11.7 %) had acromioclavicular joint osteoarthritis.

had impingement syndrome. Flexion, extension, abduction, internal, and exterior rotation all showed substantial increases in ROM following therapy ( $p < 0.001$ ). The mean increase in flexion, extension, abduction, internal or external rotation between the two groups did not differ considerably ( $p > 0.05$ ).

**CONCLUSION:** Both Methylprednisolone and Ketorolac show comparable efficacy when administered intra-articularly in shoulder problems, as measured by shoulder ROM improvement.

**KEYWORDS:** Adhesive capsulitis, Impingement syndrome, Ketorolac, Methylprednisolone, Rotator cuff syndrome.

**DR SAAD RIAZ ORTHO DHQ**

## **20. Proximal Fibular Osteotomy (PFO) in Medial Compartment Osteoarthritis Knee Joint**

*Saad Riaz,*

**Objective:** To assess the effectiveness in our patients of proximal fibular osteotomy (PFO), a new surgical intervention which claims to provide substantial relief in medial compartment osteoarthritis (OA) of knee.

**Method:** A prospective analytical study was performed in DHQ Hospital, Rawalpindi on 25 consenting patients. A length of fibular segment 1.5 to 2 cm was resected at a distance of 6 to 9 cm from fibular head under local anesthesia, wound closed in layers and

patient mobilized as soon as tolerated within few hours. Preoperative and post-operative x-rays of knee were obtained. Pre-operative and post-operative VAS score for pain was recorded on each visit up to 6 months. Any complications and complaints were recorded.

**Results:** All opting patients were female with mean age of  $47 \pm 4.2$  years. The average pre-operative VAS score was  $7.4 \pm 0.6$ , post-operative score was  $4.4 \pm 1.1$ . Average improvement in VAS score was  $3 \pm 1.2$ . The paired difference between pre and post-operative VAS scores was highly significant ( $8.1818E-12$ ). Post treatment, 2 patients reported near complete relief, 3 very little reliefs and 80% of patients reported moderate relief. Post-operative complications included reversible temporary foot drop in all, one case of nonrecovering common peroneal nerve injury, and mild ankle pain complaint in all patients. All patients expressed dislike of sawing procedure under local anesthesia although none complained of pain during operation. No patient opted for similar intervention in other limb.

**Conclusion:** The present protocol was not favored by the patients in our group, in spite of the fact that moderate alleviation of knee pain was reported by nearly all.

**Keywords:** medial compartment osteoarthritis, proximal fibular osteotomy, high tibial osteotomy, unicondylar arthroplasty.

## 21. Comparison Of Intra-Articular Injection Of Lidocaine Versus Intravenous Sedation And Analgesia For Reduction Of Anterior Dislocation Of Shoulder In Terms Of Mean Pain Reduction Using Vas Score

*Rahman Rasool Akhtar<sup>1</sup>,*

**INTRODUCTION:** The most common dislocation presenting to emergency department is anterior shoulder dislocation. Posterior dislocations and inferior dislocations are rare. Dislocations of the anterior shoulder mostly occur with the position of the arm is abducted and externally rotated. This results in injury of the humeral head, labrum, capsuloligamentous structures and glenoid. Such patients experience severe pain, therefore prompt reduction is necessary to ameliorate the pain. Intravenous analgesia combined with sedation or intra-articular injection of lidocaine can be used to reduce the anterior dislocation of shoulder by closed method. Due to its side effects, Intra-articular lidocaine (IAL) is recommended for use as a probable alternative to intravenous sedation-analgesia particularly for those patients in which the intravenous sedation-analgesia is contraindicated.

**OBJECTIVE:** To compare intra-articular injection of lidocaine versus intravenous sedation and analgesia for management of anterior dislocation of shoulder in terms of mean pain using VAS during reduction of shoulder joint.

**STUDY DESIGN:** Randomized controlled trial (RCT).

**SETTING:** In Patient department,

Orthopedic Surgery, Benazir Bhutto Hospital, Rawalpindi, Pakistan.

**DURATION:** 6 months (November 22<sup>nd</sup>, 2017 to May 21<sup>st</sup>, 2018)

**SAMPLE SIZE:** 60 patients (30 in each group)

**RESULTS:** We included sixty patients in my study. 19 (31.7%) were females and 41 (68.3%) were male patients. Out of all the patients 38 (63.3%) had right sided shoulder dislocation, while the rest 22 (36.7%) patients had left sided shoulder dislocation. Patients mean age was  $33.27 \pm 10.535$  years and mean pain score of all the patients was  $4.966 \pm 1.930$ . Group A mean pain score was  $4.200 \pm 1.648$ , while the Group B mean pain score was  $5.733 \pm 1.910$  (p value = 0.002). Stratification was done according to gender and age group of the patients, and post-stratification t-test was applied.

**CONCLUSION:** Intra-articular lidocaine is better option in pain control during closed reduction of anterior dislocation of shoulder.

**KEY WORDS:** Intra venous analgesia, Intra-articular injection of lidocaine, Anterior dislocation of shoulder.

## 22. Comparison between the outcome of proximal femoral locking compression plate and dynamic hip screw in intertrochanteric femoral fractures

*Dr. Rahman Rasool Akhtar*

**Background:** Inter-trochanteric femoral fractures are associated with a high complication rate and mortality. This study

aims to compare the proximal femoral locking compression plate (PFLCP) with dynamic hip screws (DHS) for intertrochanteric femoral fractures in terms of mean bone union time. **Methods:** It was a prospective randomized study conducted at the department of orthopedics, Benazir Bhutto Hospital, Rawalpindi, Pakistan from June 2015 to December 2015. Sixty patients with a diagnosis of intertrochanteric fractures, requiring orthopedic surgery, were included in the study. After randomization thirty patients underwent PFLCP fixation and the other thirty patients underwent DHS fixation. Patient information, demographic data, and functional level were assessed. Mean bone union time and implant complications were compared for the two treatment groups.

**Results:** Patients who underwent PFLCP fixation demonstrated shorter bone union time ( $2.8 \pm 0.2$  months) than those who underwent DHS fixation ( $3.2 \pm 0.1$  months) ( $p < 0.0000$ ). PFLCP group had 90% bone union whereas DHS group had 76.66% bone union at 12 weeks ( $p = 0.16$ ).

**Conclusions:** PFLCP had 90% bone union and is better than DHS for Intertrochanteric fractures in term of shorter mean bone union time and fewer complications.

**Keywords:** Femoral fractures , bone screws, locking compression plates

### 23.Outcome of Percutaneous Reduction and Fixation of

## Displaced Calcaneal Fractures: Our Experience

*Dr. Rahman Rasool Akhtar*

**OBJECTIVES:** To determine the functional outcome of percutaneous reduction and fixation of calcaneal fractures in terms of visual analog pain score (VAS).

**METHODS:** This descriptive study was done from 10<sup>th</sup> January 2016 to 9<sup>th</sup> January 2019. All patients presenting to the Orthopaedic emergency with displaced calcaneal fractures belonging to either gender aged between 20 to 65 years presenting within 1 week of injury were included. All patients underwent percutaneous reduction and fixation under C-arm fluoroscope. Functional outcome at 3-months post-operatively was assessed in terms of VAS. Data regarding age, gender, mechanism of injury, fractured side, time since injury, type of fracture, VAS and any complication was noted and analyzed using SPSS version 23.

**RESULTS:** 50 patients were included in the study. 40 (80%) were males and 10 (20%) females. Mean age was  $41.3 \pm 10.0$  years. Average time to surgery since injury was  $5.1 \pm 1.1$  days. Most of the patients had Sanders-II (44%) type of fracture. Most common complication was subtalar arthritis which was found in 6 (12%) of patients. Mean VAS score at 3-months post-operatively was  $2.5 \pm 0.9$ .

**CONCLUSION:** The study concludes that percutaneous reduction and fixation of calcaneal fractures has good functional outcome

### 24.Accuracy of MRI in patients undergoing knee arthroscopy

*Dr Haider*

**Introduction:** Various invasive and non-invasive methods are known to diagnose knee injuries. Non-invasive methods are always preferred if they yield the same diagnostic value because of the nature of their procedure.

**Aims and Objectives:** The objective of this study is to compare the sensitivity of MRI to arthroscopic findings, considering arthroscopy to be 100% sensitive.

**Materials and Method:** A retrospective cross-sectional study was conducted in which 54 patients with trauma to knee joint participated. The participants were first diagnosed using MRI who were to undergo arthroscopy later. The diagnosis was then confirmed via arthroscopy. The data was recorded and analyzed in SPSS version 26.

**Results:** Out of the total 54 participants, 85.2% were males and the 14.8% were females. The mean age of the participants was 28.72. The sensitivity of MRI in arthroscopic findings of medial meniscus was 83.3%, for lateral meniscus was 58.8%, for anterior cruciate ligament was 76.0%, for posterior cruciate ligament was 33.3%, and for medial femoral condyle and lateral femoral condyle were 20% and 100% respectively.

**Conclusion:** The sensitivity of MRI in diagnosis is therefore different in different types of tears. Nonetheless it does help in making diagnosis along with the help of clinical tests and methods.

**Keywords:** Sensitivity, Knee injury, Clinical diagnosis, Arthroscopy

## **25.Evaluation of psychosocial impact of congenital talipes equinovarus using parental stress scale**

*Muhammad Haider*

Congenital Talipes Equinovarus is one of the most prevalent musculoskeletal congenital defects, which is not self-healing. Objective of this study was to determine whether the parents of patients with congenital talipes equinovarus were stressed out due to the condition of the child. Various studies have been done where different congenital abnormalities and their association with parental stress has been studied but very less data is available when it comes to spectrum of psychosocial trauma these patients and their parents go through. After approval from ethical review board of the institution, informed consent was taken, cross sectional study design was used with purposive sampling. A quantitative interview study was done at the department of orthopedic surgery, Holy Family Hospital for a duration of 10 months.

After data analysis on SPSS, following results were deduced

*Mean age is 12.87 months +/- SD 4.7*

*Mean Pirani Score is 2.8387 +/- SD 1.206*

*Mean Parental Stress Score is 53.19 +/- 13.420*

Side involvement

*35% right sided CTEV*

*9.7% left sided CTEV*

*54% Bilateral CTEV*

Significant association was found between pirani score, age with parental stress score using regression analysis.

Hence, we conclude that

- ✚ Mean age of presentation is around 12 months with a mean Pirani score of 2.8.
- ✚ 54% bilateral CTEV, 35% right sided CTEV and 9.7% Left sided CTEV.
- ✚ Using multivariate analysis, age and Pirani score have statically significant relation with Total Parental stress score.

## 26. Effectiveness Of Ureteroscopic Pneumatic Lithotripsy With And Without Stone Cone For Proximal Ureteric Stones.

*Dr Muhammad Ashfaq*

**Objective :** We conducted this study to determine the efficacy of stone cone during retrograde pneumatic lithotripsy in patients with proximal ureteric stones.

**Methods :** This was a prospective comparative study conducted in patients who presented with proximal ureteric stone and underwent pneumatic lithotripsy in the Department of Urology, Benazir Bhutto Hospital, Rawalpindi from January 2021 to July 2021. A total of 100 patients were included, and the efficacy will be measured by complete clearance of stone (This will be defined as the complete removal of stone from the urinary tract) was studied at the 1st post operative day via X-ray KUB. Data was

entered and analyzed in IBM SPSS version 22.0.

**Results :** The stone was in the ureter in >55% of patients with mean (SD) of maximum stone length being 9.8 and mean (SD) age of patients being 42 out of which 37% were women and 83% were men. The efficacy, defined as no retropulsion of stone fragments, was 96.2% ( $P < 0.01$ ). There was no statistically significant difference in striations across age and gender ( $p = 0.13$ ) whereas there was a statistically significant difference ( $P < 0.001$ ) favoring smaller stones for retropulsion and success rates.

**Conclusion :** The stone cone is a successful method of preventing stone retropulsion during pneumatic lithotripsy for proximal ureteric stones. It is evident that this method lithotripsy improves success rates and is not associated with any significant complications or mortality.

**Keywords :** Stone cone, Ureteroscopy, Lithotripsy, Retropulsion

## 27. Commonest mutation of $\beta$ thalassemia in Pakistan: a descriptive study

*Dr Saima bibi*

**Introduction:** To determine different types of mutations of  $\beta$  thalassemia as result of chotonic villous sampling.

**Methods:** This was a descriptive study involving all couples requesting prenatal

diagnosis for  $\beta$  thalasemia. They were presented to Punjab Thalasemia Prevention Program (PTPP), regional centre Holy Family Hospital and were offered Chorionic Villous Sampling (CVS) after 10th week of gestation. After appropriate counselling placental sample was taken and sent for DNA analysis. Parents blood samples were also taken for DNA analysis. Each prenatal diagnostic test (PND) report included type of mutation of parents along with fetal mutation.

**Result:** Six hundred and twenty pts had CVS. The average reporting time was 7 to 10 days.  $\beta$ -thalasemia major was found in 158 (25.48%). Thalasemia minor were 282 (45.48%). No mutation was found in 176 (28.38%). only 4 (.64%) results were inconclusive. the most comments Mutation was Fr 8-9(+G) 64 (40.85%), IVSI-5 (G-C) 41 (25.70%), Fr 41-42 (TTCT) 11 (6.96%), Cd 15(G-) 06 (3.79%), Del 619 07 (4.43%), Cd 30 (D-C) 06 (3.79%), Cd5 (-CT) 06 (3.79%) IVSI-1 06 (3.79%), Others 11 (6.96%)

**Conclusion** the most common mutation of  $\beta$  thalasemia in north Pakistan was for 8-9(+G), ivsi-5 (G-C)

## 28. Causes of Abnormal Uterine Bleeding according to PALM-COEIN Classification.

*Dr Saima Anwar*

**Introduction:** The study's primary aim is to categorize women with abnormal uterine bleeding according to the PALM-COEIN classification system and to calculate the frequency of causes behind AUB.

**Method:** A descriptive observational study was carried out to determine the causes behind Abnormal Uterine Bleeding (AUB) amongst patients of reproductive age presenting at the Gynecology Ward of Gynaec Unit 1 of the Holy Family Hospital Rawalpindi, a tertiary care hospital. The total number of patients who participated in the study was 60 admitted patients. All women admitted to the ward with complaint of abnormal uterine bleeding were included in the study, excluding pregnant and postmenopausal females. The study duration was between 1<sup>st</sup> January 2022 till 30<sup>th</sup> September 2022. The tool used was a questionnaire Performa after taking consent from the patient. The analysis was made by drawing frequencies, ratios, and percentages.

**Results:** There were 02 (3.3%) cases of Adenomyosis, 12 (20%) patients with Leiomyoma, and patients with polyp were 8 (13.33%). Malignancy was found in 9 (15%) patients; coagulation defect was in 2 (3.3%) cases among the studied cases. Ovulation defects were found in 12 (20%) cases. Endometrial causes were AUB found in 6 (10%) patients and iatrogenic causes were in 5 (8.33%) cases. And 4 (6.6%) patients of the studied population were included in the non-classified category. According to PALM-COEIN classification, structural causes were 48.3%, non-structural causes were 41.66% and only 6% were in the non-classified category.

**Conclusion:** The FIGO Classification system is very helpful for clinicians to study and categorize their patients according to causes. It will be helpful for data collection to alert the health policymakers for more fund allocation toward the problems with the highest direct and indirect costs.

### **29.Barriers to contraceptive use in women of reproductive age**

*Dr Noor Fatima*

**Objective:** To find out the barrier to contraceptive use in women of reproductive

age and plan a solution to increase contraceptive use by proper counselling and awareness.

**Methods:** This study is a cross-sectional study among women aged 15-49 years. A questionnaire is used to collect data from Gynae OPD of Holy Family Hospital Rawalpindi.

**Results:** Out of 85 ladies 73 were well aware of contraceptives and only 10 were practicing contraceptive methods. Majority had misperceptions regarding its complications and some had husband and family pressure.

**Conclusion:** This study showed that there are a lot of misperceptions regarding contraceptives use. Proper awareness, provision of information and support to couples will lead to increase use of contraceptives.

### **30.Risk Factors Associatedwith Placental Abruption: A Cross-Sectional Study**

*Dr. Ayesha Zulfiqar*

**Background :** Abruption of the placenta occurs when the implanted component of the placenta separates, either partially or completely, from the wall of the uterus before delivery. It affects around 0.8 to 1 percent of newborns, and its incidence has been steadily increasing over the course of time. . At least fifty possible risk factors have been identified, some of which are preterm premature rupture of membranes, prenatal hypertension, and a previous

operative delivery. Smoking, pre-eclampsia, and a history of a previous placental abruption were reported to be the highest risk factors for placental abruption. The prevalence of specific risk variables is influenced by demographic and epidemiological trends, much as the frequency of placental abruption may be influenced by these same trends. Understanding the characteristics that put a person at risk for placental abruption is necessary in order to develop monitoring and prevention techniques as it is typically an unexpected and potentially fatal occurrence. In a population that is growing and changing, having a good understanding of the changes, potentially have a significant impact on risk management.

**Objective:** The purpose of this study was to investigate how the potential risk factors for placental abruption in our population and to evaluate the risk factors for placental abruption in patients presented in tertiary care hospital.

**Methodology:** The study design was a prospective cohort method for six months using non-probability, simple convenient sampling. Study is approved from ethical review board and conducted at Benazir Bhutto Hospital. After informed written consent, a total number of 175 patients fulfilling the inclusion criteria, were recruited from the hospital (admitted either by OPD or Emergency). All patients undergone a detailed physical examination. Demographic, clinical, radiological, laboratory and epidemiological data from hospital records will be obtained. Longitudinal data included range and duration of co-morbid, ultrasound findings, medical and surgical history, and

medication history. Routine baseline screening included complete blood counts and liver and renal biochemistry; these were repeated when clinically indicated. Suitable data entry tools and statistical techniques were used to analyse the results. In order to do comparisons between categorical variables, Chi-squared and Fisher exact tests were used. The value of 0.05 was chosen as the significance level. In order to determine the independent risk variables that are linked with placental abruption at each of the distinct time periods, two separate logistic regression models are created. The odds ratios and their respective 95 percent confidence intervals (CI) were computed for each selected risk factor in order to determine whether or not there was a trend in the individual contribution made by each variable.

**Results:** The result will be displayed at the time of conference.

### 31. Incidental Finding Of Bicornuate Uterus In A Primigravida With Ruptured Uterus: A Case Report

*DR RUBABA*

**INTRODUCTION :** A bicornuate uterus is a structural anomaly of uterus which occurs when müllerian ducts fail to fuse completely during embryogenesis. It is a rare anomaly of uterine tract and pregnancy in a bicornuate uterus is associated with fetal as well as maternal complications ranging from recurrent miscarriages and early pregnancy losses to ruptured uterus during early

pregnancy .So pregnancy in bicornuate uterus is associated with maternal morbidity and mortality.

**CASE DESCRIPTION:** A 25 year old female ,primigravida at 20<sup>+5</sup> weeks of gestation presented in gynae emergency of Benazir Bhutto hospital Rawalpindi with complaints of lower abdominal pain since morning .Pain was sharp ,stabbing and worsened with time.It was not relieved by medication and increased with change in posture .Patient was married for 3 years and had no comorbid . Patient only had one antenatal visit in first trimester in a local clinic in which bicornuate uterus was not picked up during pelvic scan. Her hysterosalpingography during fertility workup showed a unicornuateuterus .On examination her vitals showed mild tachycardia and hypotension with pulse rate of 108/min and Blood Pressure of 100/60 mmhg.Abdominal examination revealed tense tender abdomen with fundal height of 20 weeks .On ultrasound pelvis fetal cardiac activity was absent and a well-defined lesion was noticed in the posterior wall of uterus along with a streak of fluid in Morrison's pouch .Initial investigations showed a haemoglobin of 13.1 g/dl which dropped to 6.9g/dl in few hours. A diagnosis of ruptured uterus was made on the basis of examination,imaging and investigations and patient was proceeded for exploratory laparotomy.Per operatively there was 2 liters of blood clots in peritoneum and a ruptured horn of the uterus with fetuswalled of byomentunm .Second horn of the uterus with left sided tube and ovary was observed in the lateral

wall of pelvis .Ruptured horn was removed with its pregnancy .Right sided tube and ovary adherent to ruptured horn were also removed .Haemostasis was secured. Bladder was high up and adherent to the ruptured uterus.It was separated with care and few haemostatic stiches had to be taken in the serosal layer of the bladder .One unit of red cell concentrate was transfused peroperatively .Post-operative period was uneventful and patient was discharged at 8<sup>th</sup> postoperative day .

**DISCUSSION :** This case illustrates that although rare,pregnancy in a bicornuate uterus is associated with adverse fetal and maternal outcomes .It needs to be diagnosed early with close monitoring of the mother during pregnancy so timely intervention can be done .Early intervention will decrease maternal morbidity and mortality associated with the condition .

**KEY WORDS :** Bicornuateuterus , Ruptured uterus ,Primigravida

### **32.Comparison of diagnostic accuracy of ADNEX and RMI model in predicting the nature of ovarian tumour; An experience at tertiary care hospital**

*Dr.Rubaba Abid Naqvi*

**INTRODUCTION:** Ovarian cancer is the seventh most common cancer worldwide in females and the 18<sup>th</sup> most common cancer overall. This is one of the most common gynecological cancers after

cervical and uterine cancer. Due to its non-specific symptoms and lack of screening strategies, there is a delay in diagnosis which is frequently made in an advanced stage. This has made it a great clinical challenge among all gynecological cancers till now. The overall 5-year survival rate is of 44% (92% for Stage I whereas 27% for Stage IV). Adnexal masses (mass of the ovary, fallopian tube, or surrounding connective tissues) are one of the most common problems encountered by a practicing gynaecologist. It is crucial to differentiate between benign and malignant pelvic masses so that early, pre-operative differentiation, timely referral and optimal treatment can be provided. This directly affects the prognosis, hence the patient's morbidity and mortality.

**MATERIAL AND METHODS:** It was a validation study conducted at Department of OBGYN Benazir Bhutto hospital for a period of 6 months. 165 patients were enrolled passing the criteria of age 14-65 years, presented with at least one adnexal mass (ovarian, para-ovarian or tubal) on ultrasound examination with smallest diameter > 3cm and admitted for a definitive surgery. A specialized proforma has been designed to record the findings of this study. After taking informed consent, their detailed history including age, marital status, parity, presenting complaints, family history of CA were noted. RMI/ ADNEX score was calculated. Patient was assigned as in low risk/ high risk category. After surgery the values

were correlated with histopathology report to find out predictive value of both models.

**RESULTS:** Overall sensitivity, specificity, positive predictive value, negative predictive value and diagnostic accuracy of RMI in differentiation of benign and malignant ovarian masses, keeping histopathology as a gold standard was 85.56%, 81.33%, 84.62%, 82.43% and 83.64% respectively. Whereas overall sensitivity, specificity, positive predictive value, negative predictive value and diagnostic accuracy of ADNEX model in differentiation of benign and malignant ovarian masses, keeping histopathology as a gold standard was 90.11%, 85.14%, 88.17%, 87.50% and 87.88% respectively.

**CONCLUSION:** Diagnostic accuracy of ADNEX model in differentiation of benign and malignant ovarian masses is better than RMI model, and has not only dramatically improved our ability of differentiating benign and malignant ovarian tumors pre-operatively but also helps the surgeons for proper decision making. So, we recommend that this model should be applied routinely in all suspected cases of ovarian lesions for diagnosing ovarian carcinoma pre-operatively and opting proper surgical approach.

**KEYWORDS:** Ovarian tumours, risk malignancy index, ADNEX, sensitivity, specificity.

### 33. Prediction of Neonatal Birth Weight and Head Circumference by Adopting Maternal Parameters : Exploration of Automated Machine Learning & Incorporation of Ensemble Stacked Approach

*Dr Rubaba Abid Naqvi*

**Background:** Neonatal birth weight (NBW) and neonatal head circumference (NHC) have been recognized as prognosticative variables to assess the development risk of ailments and psychological faculties of the child in the near and distant future.

**Objective:** To demonstrate Artificial intelligence in general and machine learning in particular exhibits superior predictive and prognosticative capabilities, when compared with conventional statistical techniques for which automated Machine Learning is used to predict NBW and NHC by adopting maternal parameters such as parity, history of miscarriages, gestational age and maternal haemoglobin.

**Methodology:** The study population comprised 100 mothers presenting to the BBH, Rawalpindi, Pakistan for The current state of the art (SOTA) for automated Machine Learning (aML)<sup>1</sup> was adopted to develop predictive models using algorithms including Neural Network, eXtreme Gradient Boosting and CatBoost with employment of hyperparameter tuning. Ensemble

approach, which is the amalgamation of two or more than two algorithmic models to develop such a model which is better than either of its compute components, was superimposed. Logloss and macro-weighted average Area Under the Receiver Operating Curve (mWA-AUROC) assessed the predictive ability of the developed models.

**Results:** CatBoost algorithmic model predicted NBW by adopting maternal parameters with a minuscule logloss of only 0.007 and a perfect mWA-AUROC. **(Figure 1)**, precision, accuracy and recall at 100% each and a perfect F-1 score of 1. An ensemble of Light Gradient Boosting Machine and eXtreme Gradient Boosting predicted NHC with a logloss of 0.31 and an mWA-AUROC of 0.99 **(Figure 2)**, accuracy of 83%, precision of 86%, recall of 83% and an F-1 score of 0.83. Maternal hemoglobin level at term along with maternal weight and gap period is recognized as the most influential predictors for NHC. **(Figure 3)**

**Conclusions:** Our novel approach to developing predictive models for NBW and NHC using maternal parameters by exploring automated machine learning is the very first attempt of its nature. The adoption of current SOTA for aML provides optimal predictions which, when incorporated into the respective management protocols, shall translate into an optimized assistance in risk stratification and complication triaging.

### 34. Effect of Anxiety and Depression on Meconium

## **Stained Amniotic fluid in low risk obstetric patients; An experience at Benazir Bhutto Hospital**

*Shamaila Hamid*

**Introduction:** Meconium is a substance which is odorless, germ free, blackish green and thick, and is normally produced by newborn infant's intestine within initial twenty-four to forty-eight hours post birth. Though, meconium is passed by fetus in the amniotic fluid in pregnancy owing to numerous causes. It is usually in the patients with high-risk pregnancies e.g., pregnancy with diabetes, hypertension, and intrauterine growth restriction (IUGR) etc. The real question arises when meconium is encountered in young often primigravida low risk patients as the precise reason for its passage is not clear. As pregnancy is often very stressful period, so this study aims at finding the relation of anxiety and depression with meconium passage in low risk obstetric patients. If a significant link between anxiety, depression and meconium is found in this study, maternal and neonatal morbidity and mortality can be reduced by reducing anxiety and depression in pregnant women.

**Objective:** To determine the effect of Anxiety and Depression in Meconium Stained Amniotic fluid in low risk obstetric patients.

**Study Design:** A cohort study.

**Sample Size:** 65+65=130 cases.

**Place of Study:** Department of Obstetrics and Gynaecology, BBH Rawalpindi. (Out patient Department, Labour room and Gynae Emergency).

**Duration of Study:** Six Months after approval from ethical review board.

**Methodology:** All the low risk women who will present in obstetrics and gynaecology department BBH Rawalpindi for antenatal checkup at 36 weeks and onwards will be included in study. Patients will be divided in two groups based on Hospital Anxiety and Depression Scale (HADS): Group A with signs and symptoms of anxiety and depression (cases) and Group B without anxiety and depression (controls). Patients will be interviewed at 36 weeks and onwards. At the time of delivery staining of amniotic fluid with meconium will be observed, in both groups and its relationship with anxiety and depression will be analyzed. HADS will be used to access the level of anxiety and depression in these patients. **Inclusion Criteria:** Low risk obstetric patients who will come for antenatal check-up after 36 weeks in department of obstetrics and gynaecology, BBH Rawalpindi. **Exclusion Criteria:** Pregnancy with hypertension, diabetes, obstetric cholestasis, postdates pregnancy, Intrauterine growth restriction, oligohydramnios and prolonged labour.

**Results:** It is an ongoing study. Results will be discussed at the time of presentation.

### 35.A Case Report on Gut Injury following ERPC

*Dr. Aroosa*

Surgical Abortion is a commonly performed procedure. Although it is considered to be a safe procedure but it can have serious complications. It is one of the major causes of maternal mortality contributing up to 20% of maternal deaths. Although rare but the most commonly encountered complication is uterine perforation with an incidence of 4% in developing countries. Intestinal injury associated with uterine perforation, following surgical abortion is even rare. But it can have fatal complications with up to 10% mortality.

23 years old patient G3P2+0 at gestational amenorrhea of 8 weeks with previous 2 scars presented with severe lower abdominal pain following ERPC at some private clinic. On per abdominal examination, abdomen was soft with mild tenderness in lower abdomen. Per speculum examination revealed gut coming out of cervical os. Emergency laparotomy performed. On per op examination she was found to have a 2x2 cm rent in the posterior uterine wall. Loop of ileum was protruding through this perforation into vagina. Uterine perforation repaired with evacuation of retained products of conception. Double barrellel ileostomy made after resecting 2 feet devascularized portion of ileum. Post operative period was uneventful.

The most important step in the management of intestinal injury is early diagnosis and timely intervention. Emergency laparotomy decreases mortality and morbidity associated with intestinal injury with uterine perforation.

### 36. Correlation of $\beta$ hCG levels with size of gestational sac in patients of ectopic pregnancy presenting to a tertiary care health facility

*Sobia Nawaz*

**INTRODUCTION:** Ectopic pregnancy has given challenges to gynecology in its early detection. It is the implantation of fertilized ovum outside endometrial cavity and a common cause of morbidity and mortality of women of reproductive age, accounting for 3-4% of pregnancy related deaths.<sup>1</sup> In developed world 1-2% of pregnancies are ectopic, however the incidence is increasing due to PID, smoking, ART. All over the world about 10% of women with diagnosis of ectopic pregnancy die ultimately. In U.K the incidence of ectopic pregnancy is on rise and remains the leading cause of pregnancy related 1st trimester deaths <sup>2, 3</sup>. Expeditious diagnosis of ectopic pregnancy by transvaginal ultrasound and serum  $\beta$ -HCG levels can be lifesaving. Ectopic pregnancy is one of the conditions that have expectant, medical and surgical management and early diagnosis allows consideration of medical and conservative management in unruptured ones, tubal conserving procedures <sup>4</sup>. The purpose of this study was early detection and successful medical management of ectopic pregnancy and local data was deficient on literature in this regard.

**OBJECTIVE:** The objective of this study was to determine correlation of  $\beta$ hCG levels with size of gestational sac in patients of ectopic pregnancy presenting to a tertiary care health facility.

Study design: descriptive cross sectional study.

Place and Duration of Study: The study was carried out in the Department of Obstetrics and Gynecology, District Headquarters Hospital, Rawalpindi from Jan 2019 to Jan 2020.

**Methodology:** This study involved 100 pregnant women aged between 20-40 years diagnosed of ectopic pregnancy on transvaginal ultrasound. Serum  $\beta$ hCG level was acquired in all these women while the size of gestational sac was measured on transvaginal ultrasound. Outcome variable was correlation between serum  $\beta$ hCG level and size of gestational sac on transvaginal ultrasound which was noted and compared across various subgroups of patients based on age, gestational age, site of ectopic pregnancy and presence/absence of fetal cardiac activity.

**Results:** The mean age of the patients was  $29.3 \pm 6.1$  years while the mean gestational age was  $5.1 \pm 1.1$  weeks. Serum  $\beta$ hCG level ranged from 1647 mIU/mL to 18378 mIU/mL with a mean of  $7968.4 \pm 4523.7$  mIU/mL while the size of gestational sac on TVS ranged from  $17 \text{ mm}^3$  to  $45 \text{ mm}^3$  with a mean of  $36.40 \pm 7.86 \text{ mm}^3$ . There was significantly strong positive correlation between serum  $\beta$ hCG and size of gestational sac on TVS ( $r=0.659$ ;  $p\text{-value}<0.001$ ).

**CONCLUSION:** there was significantly strong positive correlation between serum  $\beta$ hCG and size of gestational sac on TVS ( $r=0.659$ ;  $p\text{-value}<0.001$ ).

**KEY WORDS:** Correlation, Ectopic Pregnancy, Serum  $\beta$ hCG, Size of Gestational Sac, Transvaginal Ultrasound

### 37. Urothelial papiloma in Post operative (LSCS) patient, A rare case report.

*Shehla Manzoor*

Hematuria after cesarean section is common. The causes of hematuria after cesarean section includes trauma to bladder, fistula formation or severe bladder infection. It is extremely rare due to urothelial papilloma in bladder and difficult to diagnose. Urothelial papillomas are an exophytic benign neoplasm composed of a fibrovascular core covered by urothelium of normal thickness and normal-appearing cytology, as defined by the 2016 WHO classification<sup>1,2</sup>. Molecular studies, immunohistochemistry and genetics may be necessary to differentiate it from malignancy<sup>3</sup>. The rarity of urothelial papillomas results in doctors having limited experience because even tertiary care institutions often have no more than one case per year<sup>4</sup>. This case report is being presented to give a clue to gynaecologist to keep in differential diagnosis while investigating post operative hematuria

#### **Case report;**

A 34 years lady having two children, both by cesarean section, presented to the hospital on 3rd post operative day with hematuria. She had her LSCS done 3 days ago in private hospital and she was discharged on 2nd post operative day with uneventful recovery. However on reaching home, she developed urinary retention and went to her primary care centre. She was catheterized there. On 3rd post operative day she presented to tertiary care hospital with frank hematuria, she was already cathetrized. On examination she was vitally stable with pulse rate of 88/min, blood pressure of

130/80mmhg, respiratory rate of 21/min and was afebrile. She was markedly pale and her BMI was 30.9. Abdominal examination revealed soft abdomen, wound was healthy, bowel sounds were present. On local examination vulva, vagina was healthy with normal lochia. Her Hb was 7.9g/dl, serum ferritin 5ng/ml and renal, liver function tests and coagulation profile were normal. Urine examination showed turbid urine with pH of 3.1, proteins ++, RBC -20-25, blood +++, bilirubin +, wbc ++ and nitrates ++. Urine culture and sensitivity showed no growth. Ultrasonography of pelvis showed normal post partum uterus with blood clot of 54 x 22 mm and debris in urinary bladder.

A differential diagnosis of Vesicouterine fistula, anticoagulant therapy and surgical trauma to bladder were made. Case discussed with primary surgeon and urologist and conservative management planned. Anaemia correction done, patient kept cathetrized and continuous irrigation of the bladder started. Initially symptoms improved but hematuria reoccurred, cystoscopy planned after patient and family counselling about the diagnosis. On Cystoscopy a velvety growth, 2.0 x 1.5 cm with punctate hemorrhages was found near the base of the bladder, biopsy was taken. On histopathology it came out a urothelial pappiloma. Symptoms of the patient improved and patient sent home with annual follow up with cystoscopy.

#### **Conclusion:**

Every post operative hematuria is not a fistula or traumatic bladder injury. Other rare causes like urothelial papiloma should be kept in differential diagnosis.

**Key words;** Post operative, Hematuria, urothelial papiloma

### **38. Emergency Peripartum Hysterectomy and Postnatal Depression: A Case Control Study.**

*Tabinda Khalid,*

**Objective:** to investigate postnatal depression after emergency peripartum hysterectomy versus controls.

**Material and methods:** This case control study was conducted at District headquarters teaching hospital Rawalpindi between July 2020 and June 2021. We compared postnatal depression among patients who underwent emergency peripartum hysterectomy (EPH) versus control group where surgical procedures other than hysterectomy (B-Lynch, uterine artery ligation or internal iliac artery ligation) were performed.

**Results:** A total of 88 patients were included, 44 in hysterectomy group and 44 in non hystrectomized/control group. The scores on Edinburgh post-natal depression scale were high in hysterectomy group ( $11.61 \pm 2.48$ ), compared to non hysterectomy group ( $6.79 \pm 2.13$ ) which was statistically significant. ( $p=0.001$ ). Uterine atony, Placental abruption, placenta previa and accrete, were identified as main reasons for surgical intervention in both groups. Emergency peripartum hysterectomy is a traumatic birth event with serious physical, emotional and psychological consequences. It is empirical to not only screen the women in immediate postpartum period, but a long term follow up in community is required.

**key words:** Emergency peripartum hysterectomy, Postnatal depression, Postpartum hemorrhage, B-Lynch suture, Internal iliac ligation.

### 39. Complications of Measles in Malnourished Children, a

*Rai Muhammad Asghar*

**Objective:** To determine the frequency of common complications of measles in malnourished children.

**Materials and Methods:** This study was conducted in the Department of Paediatrics at Benazir Bhutto Hospital, Rawalpindi from January 2018 to December 2018. Through a Descriptive Cross-Sectional Study Design, a total of 110 cases of measles with malnutrition presented to the Paediatrics Department were selected and observations were recorded.

**Results:** The mean age was 2.7 years ( $SD \pm 1.2$ ) of which 61% ( $n=67$ ) were male and 39% ( $n=43$ ) were female patients. 35.5% ( $n=39$ ) presented with grade I, 24.5% ( $n=27$ ) in grade II and 40% ( $n=44$ ) in grade III malnutrition. On follow-up, pneumonia was observed in 39.1%, diarrhea in 36.4%, otitis media in 10%, and encephalitis in 8.1% of children. The most frequent complications were observed in grade II and grade III malnourished children and children of younger age groups.

**Conclusion:** Measles and malnutrition are still calamities in our population as once together, the complications of each other are more prevalent, and preventive projects must be designed with full efficacy against both these conditions.

**Keywords:** Measles, malnutrition, pneumonia, diarrhea, otitis media, encephalitis

### 40. Epidemiological Characteristics, Clinical Spectrum And Outcomes Of Covid-19 In Cohort Of 50 Patients Of Pediatric Age Group Hospitalized In A Tertiary Care Hospital: A Retrospective Study.

*Prof. Dr. Rai Muhammad Asghar*

**Introduction:** Covid-19 was first reported in China and rapidly spread over a short span of time. As the cases began to increase, data on the clinical spectrum of this disease. The pediatric population is also at risk, however, it is less common in pediatric population. Despite this it can present in children, particularly in infants under one year of age.

**Objective:** The aim of this study was to determine epidemiological characteristics and outcomes in children hospitalized with Covid-19

**Material and Methods:** This study was conducted in the Department of Paediatrics, Hospital Rawalpindi which is affiliated with Rawalpindi Medical University from March 1st 2020 to 30th Oct 2020, 50 patients were hospitalized. We obtained medical records including epidemiology, clinical presentation, and outcomes. Data was entered and analyzed through SPSS. The study was approved by the committee of University.

**Results:** Thirty-one out of 50 patients (62%) were less than 5 years of age. 56 % Positive contact with known Covid-19 patients was present. 14% had co-morbid conditions. PCR was positive in 47(94%) of patients. 14% were diagnosed clinically, with the help of CT scan findings. 14% had common symptoms. Loose motions were seen in 16% and 14% died. Most of the deaths 8(61.5%) were under one year of age. Complications like Acute respiratory distress syndrome (ARDS), disseminated intravascular coagulation (DIC), and septic shock.

**Keywords:** Covid 19, cough, fever, infants, pneumonia, poor intake, blood picture (CBC) were Thrombocytopenia (80.1%)

and leucopenia (65.1%). Normal leucocyte count was seen in 59 cases (13.68%). Thrombocytopenia (platelets less than 100,000) was seen in 351 patients (80.1%) out of which 30 cases (6.9%) had a platelet count less than 50,000. Leukopenia was found in 285 (65.1%) patients. Most of the patients were positive for NS1 (70.3%). IgM was positive in 62.1% and IgG was positive in 14.8%. Enteric Fever as co-infection was found in 30(6.8%) children.

#### **41. An Evaluation of Hematological Changes in Paediatrics Dengue Fever Patients at a Tertiary Care Hospital Rawalpindi during 2019 Outbreak**

*Rai Muhammad Asghar*

**Objective:** The study aimed to evaluate the hematological parameters of patients with dengue fever in order to increase the sensitivity of screening for early diagnosis and as an aid to the early institution of appropriate treatment.

**Materials and Methods:** This study was conducted in Paediatrics Department Benazir Bhutto Hospital, Rawalpindi for a period of 6 months from July 2019 to December 2019.

**Results:** During the study period of 6 months, 438 dengue serology-positive children were admitted, among which 254 were male (58%), and 184 were female (42%). The children's age ranged from 01 months to 12 years, with a mean age of 8.03 years (SD + 3.13 years). Out of 438 children, 254 (58%) were uncomplicated dengue fever (DF), 119 children (27%) developed dengue hemorrhagic fever (DHF). 65 children (15%) were into dengue shock syndrome (DSS). The predominant findings

**Conclusion:** Careful assessment and interpretation of hematological changes in dengue patients allow early diagnosis and institution of appropriate treatment.

**Keywords:** Dengue, platelets, children.

#### **42. Lack of adherence to complementary feeding in middle socioeconomic status Pakistani infants and young children**

*Rai Muhammad Asghar*

##### **PURPOSE**

Nine- and one-half percent of Pakistani children under five years of age are overweight, compared to the worldwide estimate of 5.6%. To help prevent under and over nutrition WHO recommends assessing infant and young child feeding practices for targeted interventions. The objective of our study was to compare the dietary practices of metro and non-metro, middle socioeconomic class Pakistani children to WHO guidelines.

## METHODS

Trained female interviewers went door to door in arbitrarily selected middle-class neighborhoods of 7 cities and if children aged 6-23 months resided in the household, their mothers were asked to answer a questionnaire about their children's initial and complementary feeding practices and specifically, their intake in the previous 24 hours. Results of the survey were compared to WHO recommendations.

## RESULTS

The questionnaire was completed by 192 mothers. Results indicated that 27% of sample children had already received some food apart from any milk before age 6 months; for 6% this had occurred before the age of 3 months. In the 7–12-month-old group, 11% had not yet received any complementary foods while this was the case for 6% of those aged 13–23-months. Only 49% of the 12-17-month-old and 60% of the 18-23 achieved minimum dietary diversity. Of the 13–23-month-olds, 80% routinely received sucrose-added foods and 71%, soft drinks.

## CONCLUSIONS

Major deviations from WHO recommendations were observed. These included inadequate food diversity, early and late introduction of complementary feedings, and routine feeding of sweetened foods and beverages. These findings should be taken into consideration when implementing educational measures for infant and young child feeding.

### 43.The Effect of COVID-19 Pandemic on Hospital Visits and Admissions in Paediatric Department, Benazir Bhutto Hospital, Rawalpindi

*Rai Muhammad Asghar*

**Objectives:** To assess the effect of the COVID-19 Pandemic on hospital visits and admissions of non-COVID-19 patients in 2020 compared to 2019.

**Material and Methods:** This retrospective study was conducted in 2021 at the Department of Pediatrics, Benazir Bhutto Hospital, Rawalpindi comparing the data of non-COVID-19 patients visits and admissions from January 2019 with non-COVID-19 patients visits and admissions from January 2020 to December 2020. The relevant data was retrieved from the Pediatric Department record on a pre-designed study questionnaire. Data was entered and analyzed in SPSS version-24 for descriptive statistics and analysis.

**Results:** The total OPD visits in 2019 were 112682 patients compared to 63859 patients in 2020 showing a 43.33% reduction. The total number of patients who visited pediatric emergency were 80274 in 2019 and 41182 in 2020, showing a decline of 48.65%. There were a total of 6151 admissions in the paediatric ward in 2019 compared to 2778 admissions in 2020 recording a decline of 54.84%. The admissions in the Neonatal Unit were 5544 in 2019 and 3528 in 2020 with a reduction of 36.36%. The admissions in PICU in 2019 were 2685 and in 2020 the admissions decline to 2011 which is a 25.1% reduction.

**Conclusion:** There was a significant decline in both hospital visits and admissions in 2020 compared to those in 2019.

**Keywords:** Non-COVID-19, visits, admissions.

#### 44.Role Of Chest Ct For Rapid Triage Of Patients With Covid-19 Pneumonia

*DR HINA HAFEEZ*

**Objectives:**To assess the diagnostic performances of chest CT for efficient triage of patients in multiple departments during COVID-19 epidemic, in comparison with reverse transcription polymerase chain reaction (RT-PCR) test.

**Method:**From March 25<sup>th</sup> to April 25<sup>th</sup> 2021, 500 patients from different departments of a tertiary care hospital were selected who underwent a chest CT and one or several RT-PCR tests. Chest CT were reported as “Definitely COVID+”, “Possible COVID+” or “COVID –” by experienced radiologists. Sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) were calculated using the final RT-PCR test as standard of reference.

**Results:** On the RT-PCR test 207 patients were tested positive to COVID-19 whereas 293 were reported negative. Chest CT were reported as “Definitely COVID+” in 222 cases (44.4 %), “Possible COVID+” in 24 cases (4.8%) and “COVID-” in 254 cases (50.8%).Comparing only Definitely COVID+ category with PCR results sensitivity, specificity ,PPV and NPV were 90.3%, 88%,84.2% and 92.8%

#### **Conclusion:**

During this time of pandemic ,with limited health resources and increased patient turn over CT chest is simple ,rapid and reliable tool for triaging patients as COVID + or

COVID – in order to decrease work load in hospitals.

#### **Keywords:**

Coronavirus; ;Computed Tomography;;RT-PCR; Sensitivity and Specificity, PPV,NPV

#### 45.Case of Benign Idiopathic Intracranial Hypertension with Empty Sella And Gonadotrophin Insufficiency

*Dr Ambreen*

**Introduction** Benign idiopathic intracranial hypertension is a relatively rare disorder characterized by raised intracranial pressure in the absence of any intracranial space occupying lesion, ventricular dilation, infection or inflammation. The pathophysiology is unclear. It is most commonly seen in obese females of child bearing age. Patient has normal GCS and neurological findings. It can cause significant and permanent visual loss. Empty Sella syndrome a rare disorder having enlargement of Sella turcica, with herniation of subarachnoid space and flattening of pituitary gland. It can be primary (idiopathic) with raised intracranial pressure or secondary to surgery, trauma or pituitary adenomas. Pituitary insufficiency is more common in complete empty Sella syndrome. Among Isolatedhormonal deficiencies, gonadotrophic axes are most commonlyeffected.

**Case Report** We report a case of 38 years old young obese lady with bilateral established Papilledema and visual disturbances but no symptoms of headache, nausea, vomiting. Patient had a BMI of 32. Best corrected visual acuity was 6/6 in right eye and Counting figure 1 foot in left eye. Fundus showed asymmetric papilledema with disc pallor in left eye. Visual fields had bilateral blind spot enlargement with loss of nasal side of visual fields. Her CT-Scan brain was normal. MRI brain showed empty Sella. Hormonal profile had low FSH levels (gonadotrophin insufficiency). ESR was raised 60 mm/h. Her CSF opening pressure was 40cmH<sub>2</sub>O. She was advised weight reduction and prescribed oral acetazolamide 250mg q.i.d for 12 months. Therapeutic CSF discharge was also done. She was also given hormone replacement therapy. Her visual disturbances improved with partial visual recovery (6/60) in left eye and disc edema reversed in right eye.

**Conclusion** BIIH is a diagnosis of exclusion in every case of papilledema. Patients with empty Sella and BIIH should have hormonal profile done to rule out pituitary insufficiency. Visual loss is reversible if treatment is started early enough. It is a lifelong disease with prolonged follow-up

**Key words:** Benign Idiopathic Intracranial Hypertension, Empty Sella syndrome, Gonadotrophin Insufficiency, Pituitary gland

## 46. Dengue 2021: Trend and Infection rate in Teaching Hospitals of Rawalpindi

*Rizwana Shahid , Muhammad Mujeeb Khan , Sadia Khan , Nargis Zaidi and Sheikh Abdul Rehman*

Dengue is a viral infection that is transmitted to human through bite of Aedes mosquito which in turn incorporates dengue virus in human blood.

**Objectives:** To determine the trend of dengue cases reporting in Teaching hospitals of Rawalpindi during 2021 and dengue infectivity rate.

**Methods:** A cross-sectional descriptive study was done in teaching hospitals (Holy Family Hospital, Benazir Bhutto Hospital and District Head Quarters Hospital) affiliated with Rawalpindi Medical University during September and October 2021 to study the trend of dengue cases and infection rate. The data were gathered with permission of Medical Superintendent working in each of the 3 hospitals pertinent to the number of patients visiting Infectious Diseases OPD, patients admitted and verified as dengue positive on lab investigations. Data were analyzed by means of Microsoft Excel 2010.

**Results:** About 1509 patients visiting Dengue OPD during September 2021 while 9765 patients visited during October 2021. Dengue infection rate among patients attended and being managed in three public

sector tertiary care hospitals was 21.6% and 13.6% during September and October 2021 respectively. Conclusion: Dengue infection rate indicates the need to strategize for regional curtailment of this disease.

#### **47. Hemorrhagic Manifestations among dengue patients in Tertiary care Hospitals of Rawalpindi Medical University Pakistan**

*Rizwana Shahid*

**Objective:** To determine the frequency of various hemorrhagic manifestations among patients presenting with different dengue clinical syndrome in tertiary care hospitals affiliated with Rawalpindi Medical University.

**Methods:** A cross-sectional descriptive hospital record-based research was carried out in three tertiary care hospitals (Holy Family Hospital (HFH), Benazir Bhutto Hospital (BBH) and District Head Quarters (DHQ) Hospital) affiliated with Rawalpindi Medical University. The data was collected during dengue epidemic from September-November 2019 pertinent to demographics, various bleeding manifestations, dengue clinical syndrome and hospital stay through consecutive sampling. The data was analyzed by means of SPSS version 25.0 and Microsoft Excel 2010. Gender based differences in various haemorrhagic manifestations was statistically verified by application of chi square test.  $P < 0.05$  was taken as significant.

**Results:** Of the total 1928 dengue cases with bleeding manifestations, 73.4% were males. About 1248(64.7%), 466(24.2%) and 214(11.1%) were admitted in HFH, BBH and DHQ Hospital Rawalpindi respectively. Amongst diverse haemorrhagic manifestations 33.8% had hematuria while 34.1% and 25.6% had gum bleeding and maculopapular rash respectively. Males presented with hematuria ( $P < 0.001$ ) and rash ( $P < 0.005$ ) comparatively more than those of females.

**Conclusion:** Dengue virus infections are more prevalent among males residing in Rawalpindi and Islamabad. It is deadly but curable. Timely and appropriate management of cases can result in significant reduction of death toll.

**Keywords:** dengue epidemic, dengue hemorrhagic fever, dengue shock syndrome, tertiary care hospitals.

#### **48. An Overview of Missing Children scenario 2020 in Pakistan**

*Rizwana Shahid*

**Objectives:** To determine the frequency of missing children in Pakistan with respect to their provincial placement along with age and gender-based distribution.

**Subjects & Methods:** A cross-sectional survey was done by gathering the data of missing children from Sahil NGO regarding their provincial belonging and their age as

well as gender grouping. The data was analyzed by using Microsoft Excel 2010.

**Results:** Of the total 345 missing children, most (55.6%) of the children belonged to Sindh followed by 20% from Khyber Pakhtunkhawa (KPK) and 14.8% from Punjab. First Information Report (FIR) of only 209 was registered at police station. 43.8% of the missing children were 11-15 years old and about 86.1% of the missing were boys.

**Conclusion:** Boys in 11-15 years age group residing in Sindh, KPK and Punjab are most likely to be missed.

**Keywords:** missing children, provincial placement.

#### **49.Migrating Intrauterine Device : A Case Report**

*Sobia Nawaz*

**INTRODUCTION:** IUDs are a widely used method of contraception worldwide. These devices are reliable, cost-effective, long acting and reversible. 1 Copper or levonorgestrel based IUDs are among the most effective methods of contraception with failure rates of less than 1 % during the first 12 months of use. 2 The reported rate of perforation is 0.3 – 2.6 per 1000 insertions with higher rates being associated with inserter's inexperience, postpartum status, breastfeeding status and abnormal uterine cavity anatomy. 3 After uterine perforation, the IUD can migrate into surrounding organs particularly the bladder and sigmoid colon.

**CASE REPORT :** A 34-year patient P8+0 previous one lower segment cesarean section 5 years back presented in Gynae OPD with history of recurrent UTI and backache for last 1 year. Patient had been treated with multiple courses of antibiotic therapy followed by recurrence of symptoms. Her X ray lumbar spine was done due to backache. X ray lumbar spine showed no significant findings in the lumbosacral area but incidently there was a radiopaque foreign body in right hemipelvis almost at the level of ischial spine. On ultrasound pelvis there was suspicion of foreign body anterior to uterus in the vicinity of bladder. Uterus was of 8 X 5 X 4 cm size anteverted with endometrium of 6 mm. Right adenexal mass of 6.7 X 4.5 cm with solid and cystic components seen. Patient denied history of any IUCD insertion. her surgery was planned. On the day of surgery cystoscopy was done first. Upper end of IUCD was seen projecting into the bladder through the mucosa at the superolateral angle of bladder wall. Cystoscopically IUCD was tried to be pulled with help of grasper but it was firmly adherent to the other end in the abdomen. So decision was made to proceed for laparoscopy. There was a band of omentum adherent to the right side of bladder but IUCD was not seen. She was proceeded for laparotomy. Right side of bladder wall was explored, IUCD removed with difficulty and bladder was repaired. Her postoperative recovery was uneventful. She was discharged in stable condition.

**CONCLUSION :** IUCD migrating into the urinary bladder is a rare complication that

should be considered in a patient with recurrent urinary tract infection who gives history of IUCD. Although rare complication but with increasing use of IUCD we should anticipate the growing number of migrating IUCDs.

**KEY WORDS :** Migrating IUCD, cystoscopy

## **50. Study for the estimation of prevalence, awareness and feelings of middle-aged/old ladies regarding Female Sex Disorders**

*Tabinda Khalid*

- **Background :** Sex relations are important aspect of Human life, both in male and female, and are meant for breeding of further generations and pleasure in life. Both of these features of life have been explained very nicely in the Qur'an Kareem as follows: "O mankind! Be dutiful to your Lord, Who created you from a single person (Adam), and from him (Adam) He created his wife [Hawwa (Eve)], and from them both He created many men and women" (Surah An-Nisa': versus 1). "And among His signs is that He created for you from yourselves wives (Spouses) that you may find repose (Peacefulness, pleasure) in them; and He placed between you affection and mercy. Indeed in that are signs for a people who give thought" (Surah Ar-Rum: versus 21).

- **Female Sex Disorders (FSD)** usually develop in elderly women and include: disturbances of sexual desire, genital arousal, orgasm and painful/or difficult intercourse. In old age low serum estrogen results in poverty or sex drive, vaginal smooth muscle degeneration, thinning of vaginal mucosa and decrease in secretions, which result into low sex drive, vaginal dryness and dyspareunia. So far we could not find any study in Pakistan to explore or manage FSD. It was usually thought of a psychological problem, but it is more of an age-related organic illness.
- **Objectives** In our culture, elderly ladies generally hesitate to express their sex related issues, although they do suffer. Therefore, present study meant to estimation prevalence, awareness and feelings of middle-aged/old ladies regarding FSD.
- **Materials and methods** Present study is a preliminary report of an on-going project and includes the data of 50 middle-aged/elderly ladies reporting for any gynecological or medical problem to District Head Quarter Hospital. Those who agreed to talk were persuaded to find out any FSD symptom and included in the study. Besides demographic details, data to estimate prevalence, awareness and feelings regarding

FSD was collected in a structured questionnaire including Yes/No questions and Visual Analog Scales (VAS). Data was analyzed using Microsoft Excel to calculate % of Yes/No and mean with SD of VAS.

- **Results :** The data of 50 elderly women, aged ..... years with a mean age of ..... is presented. Results of Yes/No questions and VAS for prevalence, awareness and feelings regarding FSD are given in Table 1. Collective prevalence of symptoms was Y=..... and were of temperate degree (Aggregate mean of VAS= .....). They were mostly aware of symptoms that could occur in old age pertaining to sex (Aggregate Y=.....). In the start of talk they were quite embarrassed (Y=....., mean VAS=.....), while at the completion they were very happy (Y=....., mean VAS .....).
- **Conclusions :** Like anywhere else our elderly ladies did suffer from FSD in a noteworthy proportion. They were mostly aware of the presence of FSD symptoms in old age. They were quite embarrassed to talk about their sex problem in the beginning, but felt very happy later in the conversation.

## 51.Role Of Contrast Enhanced Flair Mri As A New Tool In Diagnosing Tuberculous Meningitis

*Dr. Ume Kalsoom, Dr Aniqua Saleem, Dr. Jahangir Khan*

**Objective:** To determine the diagnostic accuracy of contrast-enhanced FLAIR images as an imaging tool in diagnosing tuberculous meningitis considering CSF analysis as gold standard.

**Study Design:** Comparative Cross sectional Study.

**Place and Duration of Study:** This study was conducted in Radiology Department of Pakistan Institute of Medical Sciences, Islamabad, from May to Oct 2016 in collaboration with Neurology Department.

**Methodology:** Total 255 patients having clinical suspicion of Tuberculous meningitis were included. Patients having intracranial hemorrhage, claustrophobia and metallic implants in body were excluded. MRI scan of brain from the vertex till the base of skull was performed at 1.5 Tesla MRI machine. Contrast enhanced T2 FLAIR images were acquired and evaluated by radiologists for tuberculous meningitis. CSF analysis was done after lumbar puncture of the patient. Diagnostic accuracy of the procedure was determined by taking CSF analysis as the gold standard. Data was analyzed by using SPSS 21.

**Results:** One hundred and fifty-four (61%) patients were found to have abnormal enhancement on contrast enhanced FLAIR images. One hundred and forty-six (58.4%) were True Positive and 8 (3.2%) were False Positive. Among, 101 contrast enhanced

FLAIR images negative patients, 6 (2.4%) were False Negative whereas 95 (38%) were True Negative. Overall sensitivity was 96.05%, specificity 92.23%, positive predictive value 94.81%, negative predictive value 94.06% and diagnostic accuracy 94.51%.

**Conclusion:** This study concluded that contrast-enhanced FLAIR magnetic resonance images have high sensitivity and specificity in diagnosing tuberculous meningitis.

## 52. Accuracy of Magnetic Resonance Imaging in Diagnosing Morbidly Adherent Placenta

*Dr. Nasir Khan, Dr. Anam Zahoor, Dr. Sana Yaqoob, Dr. Riffat Raja*

**Objective:** To determine the accuracy of magnetic resonance imaging (MRI) in diagnosing morbidly adherent placenta, taking surgical findings as the gold standard.

**Methods:** In this cross-sectional descriptive study, a total of 107 patients with the suspected morbidly adherent placenta (MAP) and ages between 20-40 years underwent MRI pelvis. Images were assessed by an experienced radiologist for the presence or absence of morbidly adherent placenta (MAP). All patients later had surgery and operative findings were compared with MRI findings. Data was

analyzed by IBM SPSS Statistics for Windows, version 21.0. Armonk, NY.

**Results:** The age range of the patients was from 20-40 years with a mean age of  $28.31 \pm 3.86$  years. Most of the patients 87 (81.31%) were between ages 20 to 30 years. In 60 MRI positive cases, 53 were true positive and the other 07 were false positive. In 47 MRI negative patients, 40 were true negative and 07 were false negative. Overall sensitivity, specificity, and diagnostic accuracy of MRI in diagnosing MAP, taking operative findings as the gold standard was 88.33%, 85.11%, and 86.92% respectively.

**Conclusion:** Magnetic resonance imaging (MRI) is an excellent modality with a highly sensitive and accurate modality for diagnosing morbidly adherent placenta (MAP).

**Key Words:** Morbidly adherent placenta (MAP), Magnetic resonance imaging (MRI)

## 53. Attitude And Perception Of Medical Students Towards Professionalism And Its Link With Early Clinical Exposure

*Dr. Sidra Hamid*

**INTRODUCTION:** Professionalism is an integral part of 7 fundamental capabilities which a student must acquire before graduation as a doctor as referred to model of 7-star doctor by World Health Organization. Medical professionalism is a foundational aspect of proficiency in medicine and medical students as future

professionals must reflect this core competency. Aims of this study were to assess the attitude and perception of professionalism among medical students and effect of early clinical exposure on development or acquisition of this prestigious dexterity.

**MATERIALS AND METHODS:** A cross-sectional descriptive study was conducted among 250 Medical students from all five years from Rawalpindi, Islamabad from April to June 2020. Responses about perception of professionalism were assessed by Barry's challenges to professionalism questionnaire and attitude of students was assessed by a self – formulated questionnaire by combining previously validated questionnaires. One-way ANOVA, chi square tests and correlation were used for analysis.

**RESULTS:** Out of total participants, 210 (77.7%) were females and 49 (18%) were males. One-way ANOVA showed significant association ( **$p=0.006$** ) of year of medical study with professionalism. In assessment of attitude towards professionalism, total best score was 270, out of which mean score stood **207.48** which shows considerably acceptable behavior adaption by students in regards to professionalism. For evaluating perception about professionalism, **23%** students gave best possible answers and **25%** selected second best answers.

**CONCLUSIONS:** Results depict that mostly students involved in study had a positive attitude towards professionalism but perception of ideas still needs to polish by

early clinical exposure of medical students and proper guidance by faculty members. Improving behaviors and performances in medical professions requires adequate training on the concepts of medical professionalism and consequently the assessment of the levels of professionalism achieved in medical professionals.

**KEYWORDS:** Professionalism, medical students, attitude, perception, clinical exposure

## 54. Obstructive Uropathy

Dr. Ahmed Sajjad

**Background:** The damage to renal tissue caused by obstructive uropathy often leads to renal dysfunction and if treated earlier is potentially reversible. Our objective was to determine major causes of obstructive uropathy in our country and various treatment modalities that we could offer to relieve the obstruction and to determine their outcome in terms of renal impairment and mortality.

**Methods:** It was a prospective case series and all the patients presented with obstruction in drainage of urine resulting in an elevated serum creatinine  $>1.5$  mg/dl. Cause of obstruction was established with appropriate investigations and treatment was then tailored according to the diagnosis and outcomes observed.

**Results:** A total of two hundred and seventy three ( $n=273$ ) patients of either sex with age 16-86 years were finally enrolled. Most common etiology was found to be urolithiasis ( $n=136$ , 49.8%) followed by bladder outlet obstruction ( $n=85$ , 31.1%). Kidney diversion/PCN was done in

35 (12.82%) patients, double J Stenting in 33 (12.08%), Percutaneous Nephrolithotomy in 15 (5.49%) patients, ureterorenoscopy, in situ lithotripsy and stenting in 45 (16.48%). Other procedures were TURP in 40 (14.65%), suprapubic catheterization or optical urethrotomy in 20 (7.32%) and TURBT in 22 (8.05%). However, 17 (6.22%) of the patients failed to improve despite adequate management and were put on maintenance hemodialysis. 11 (4.07%) expired during the course of management.

**Conclusion:** The leading cause of obstructive uropathy in this series was urolithiasis. For which, ultrasound guided percutaneous nephrostomy and double J stenting were quick method of temporary urinary drainage. Moreover, Timely diversion of urine and subsequent skilled management can prevent the patients from progression to end stage renal disease.

**KEY WORDS:** Hydronephrosis, Obstructive uropathy, Urolithiasis

## **55.Observing the Outcome of Ureter Stones Expelled with Medical Expulsive Therapy: A Prospective longitudinal Study**

*Dr. Muhammad Ameen*

**Introduction:** There are a lot of risks involved with the surgery which include postoperative complications such as ureteric damage and sepsis. With the rise in the need for an efficient cure for expelling ureter stones research is being done to study the effect of medical expulsive therapy on the expulsion of stones.

**Aim:** The purpose of this study was to observe the outcome of ureter stones expelled with medical expulsive therapy

**Methodology:** The study population consisted of a sample of 220 patients that had been diagnosed with Ureterolithiasis. This diagnosis was radiologically confirmed. Once the diagnosis was confirmed, the patients were prescribed medication for the medical expulsive therapy. The medication prescribed was tamsulosin which was to be taken daily over a period of six weeks. Follow-up checkups were used to gauge the pain severity and determine whether the drugs needed to be continued. Surgical intervention was required for patients who had a stone size greater than 10 millimeters. Prospective longitudinal study. This study was conducted at Benazir Bhutto Hospital Rawalpindi Pakistan, period of six months from December 2020 to May 2021.

**Results:** In a total of 220 patients, 173 (78.6 %) of the patients were male while the rest of the 47 patients (21.4%) were female. The mean age of the patients was  $41 \pm 4.3$  years. The results showed that a total of 220 stones were found in the patients where 43 stones (19.5 %) were found in the upper ureter, 55 stones (25%) in the mid ureter and 122 stones (55.5%) in the lower ureter. A total of 40% of the patients passed their stones within the 12-weeks. A total of 14% patients did not expel the stones through Medical expulsive therapy rather they required surgery to remove the stones. The results from the study showed that in cases of uncomplicated Ureterolithiasis, stones

which had a size of up to 10 millimeters could be expelled easily through medical expulsive therapy.

**Conclusion:** The study showed that only a small percentage of the patients with ureter stones required surgical intervention and vertical expulsive therapy proved to be an efficient way of expelling the stones up to ten millimeters. The trial could be continued from 6 to 12 weeks dependent on the movement of the stones through the ureter passage.

#### **56.Association of Neutrophil to Lymphocyte ratio and Platelet to Lymphocyte ratio with Fatty liver in type 2 Diabetes Mellitus patients.**

*Dr.Sualeha Ahmed*

**Introduction** Diabetes mellitus is the commonest cause of Nonalcoholic fatty liver disease (NAFLD) with estimated prevalence of 70%. Neutrophil to lymphocyte ratio (NLR) and platelet to lymphocyte ratio (PLR) are potential indicators of inflammation and can serve as a reliable marker in complicated type 2 diabetes mellitus.

**Objective** To find the association between neutrophil to lymphocyte ratio, platelet to lymphocyte ratio and fatty liver in type 2 diabetes.

**Materials and methods** This comparative analytical study was conducted in Shifa International Hospital on diabetic patients.

Sample size was calculated as 62 by WHO sample size calculator. Nonrandomized convenient sampling was used. Patients were divided into two groups according to fatty liver status as assessed by ultrasonography. Full blood count, lipid profile and liver profile were done. Data was analyzed by SPSS version 21. Descriptive statistics were calculated for categorical variables. For quantitative normal and dispersed variables, independent student t and Mann Whitney U test were applied respectively. P Value less than 0.05 was considered significant

**Results** Out of total 93 patients, 33 (35.4 %) were males and 60(64.5%) were females. The mean duration of disease was  $7.61 \pm 5.8$  years with 68.8% prevalence of fatty liver. BMI was significantly elevated in patients having fatty liver. There was no significant association between NLR, PLR and fatty liver although ALT, LDL and Triglycerides were significantly elevated in patients with fatty liver

**Conclusion** There was no significant association found between NLR, PLR and fatty liver in patients with type 2 diabetes. Although ALT, LDL, Triglycerides and BMI differed significantly between the groups.

#### **57.Role of 5- $\alpha$ -Reductase inhibitor(Finasteride) in Reducing Perioperative Blood Loss in Trans-Urethral-**

## Resection-of-Prostate for Benign Prostatic Hyperplasia

*Dr Muhammad Noman Qureshi*

**Objective :** The objective of my study is to determine role of finasteride in reducing perioperative blood loss in Trans-urethral-resection-of-prostate for Benign Prostatic hyperplasia

**Methods :** The current study was carried out in the Urology department of Benazir Bhutto Hospital, Rawalpindi. Total 100 subjects who needed TURP were included in the study and divided into two groups , 50 in each group by continuous non probability sampling. one group received short course of finasteride for 2 weeks and other was finasteride naive group. All underwent TURP by consultant's urologist. Their pre-op and post-op hemoglobin (Hb) and hematocrit (Hct) were noted. The result was analyzed using SPSS version 25. The study was expected to determine whether there is significant difference of in mean hb fall concentration between the two groups or not.

**Results :** The reduction of Hb and HCT in the finasteride group was significantly lower than the reduction in the placebo group ( $P < 0.05$ ).

**Conclusion :** This was concluded that finasteride has a significant role in reducing perioperative blood loss in Trans-urethral-resection-of-prostate for Benign Prostatic hyperplasia

## 58.Effectiveness Of Ureteroscopic Pneumatic Lithotripsy With And Without Stone Cone For Proximal Ureteric Stones.

*Dr Muhammad Ashfaq*

**Objective :** We conducted this study to determine the efficacy of stone cone during retrograde pneumatic lithotripsy in patients with proximal ureteric stones.

**Methods :** This was a prospective comparative study conducted in patients who presented with proximal ureteric stone and underwent pneumatic lithotripsy in the Department of Urology, Benazir Bhutto Hospital, Rawalpindi from January 2021 to July 2021. A total of 100 patients were included, and the efficacy will be measured by complete clearance of stone (This will be defined as the complete removal of stone from the urinary tract) was studied at the 1st post operative day via X-ray KUB. Data was entered and analyzed in IBM SPSS version 22.0.

**Results :** The stone was in the ureter in >55% of patients with mean (SD) of maximum stone length being 9.8 and mean (SD) age of patients being 42 out of which 37% were women and 83% were men. The efficacy, defined as no retropulsion of stone fragments, was 96.2% ( $P < 0.01$ ). There was no statistically significant difference in striations across age and gender ( $p = 0.13$ ) whereas there was a statistically significant

difference ( $P < 0.001$ ) favoring smaller stones for retropulsion and success rates.

**Conclusion :** The stone cone is a successful method of preventing stone retropulsion during pneumatic lithotripsy for proximal ureteric stones. It is evident that this method lithotripsy improves success rates and is not associated with any significant complications or mortality.

Keywords : Stone cone, Ureteroscopy, Lithotripsy, Retropulsion

### 59.A rare embryonal neoplasm: A case report

Dr Ahmed Hasan Ashfaq, Dr Muhammad Arshad, Dr Nida Riaz

#### Introduction:

- Teratoma in adults is reported very rarely (with a frequency of 1/40000)
- Cervical teratomas represent 1.5% of all teratomas
- Malignant transformation of cervical teratoma has been reported.

#### Discussion:

- Teratomas are embryonal neoplasms that arise when totipotent germ cells escape the developmental control of primary organizers and give rise to tumors containing tissue derived from all three blastodermic layers (ectoderm, endoderm, and mesoderm).
- Histologically, teratomas are classified as mature/benign in 95 percent cases and immature/malignant in 5 percent cases.

- Cervical teratomas present as a slowly progressive non-tender mass and is often asymptomatic.
- The diagnosis is supported by histological evidence buttressed by radiological evidence.
- Complete surgical removal is the treatment of choice. Adjuvant radiotherapy or chemotherapy is generally considered ineffective.

#### Case Report:

- A 25-year-old female presented with a left-sided tonsil mass for the last 6-7 months that was progressive. There was no h/o recurrent sore throat, fever, or breathing difficulties. There was no history of weight loss.
- On examination, there was an irregular mass approximately 2\*3 cm in length protruding from the Left tonsillar bed and crossing the midline.
- CT scan showed a fat attenuation cyst present in the Left tonsillar bed.
- Excisional biopsy showed mature teratoma of the Left tonsil.
- 6-month follow-up revealed no new growth and the patient remained symptom free.

### 60.Assessment of the reduction of submental fullness with ATX 101 injections in expanded safe zone

*Dr. Husnain Khan*

Background: Facial aesthetics have an important influence on social. The aesthetics of the face are tremendously influenced by

the shape of the chin and neck. Appropriate patient selection is key to ensuring optimal outcomes and reducing the risk of adverse events. ATX-101 treatment may be administered in combination with botulinum toxins, hyaluronic acid fillers, radiofrequency treatment, and cryolipolysis. No such study has been carried out at national level in Pakistan, therefore this study was planned.

**Objective:** To observe outcome after use of ATX 101 in expanded safe zone for submental fullness  
**Material & Method**  
**Study Design:** Quasi experimental  
**Setting:** Rawalian Burn and Reconstructive Surgery unit, Holy Family Hospital, Rawalpindi, Pakistan  
**Duration:** 09 months i.e. 10-1-2021 to 11-10-2021

**Data collection:** After meeting the inclusion criteria 62 patients were enrolled. It was recorded also if the complications had occurred or not. Moreover, total number of treatment sessions, volume of injectable used and interval between sessions were also recorded. ATX-101 package was applied to the treatment area, avoiding the region of the marginal mandibular nerve. After procedure outcome and complications were observed.

**Results:** In this study patient satisfaction was found in 59(95.2%) patients. After 4th session final improvement was observed in 59(95.16%) patients. Tenderness was found in 7(11.3%) patients, bruising noted in 4(6.5%) patients, edema was found in 7(11.3%), numbness noted in 1(1.6%),

paresis and alopecia not found in any patient.

**Conclusion:** This study concluded that ATX 101 is very useful with fewer complication rates and with better improvement in expanded safe zone for submental fullness.

**Keywords:** ATX 101, Submental Fullness, Complication, safe zone

## 61. COMPARISON Of Postoperative Resolution of Epiphora and Complications Between Endoscopic Dacrocystorhinostomy with And Without Stenting in Chronic Dacrocystitis.

Dr Ahmed Hasan Ashfaq, Dr Muhammad Arshad, Dr Nida Riaz

**Introduction:** The preferred approach for opening the chronically infected nasolacrimal sac is Transnasal endoscopic. A silicone stent is placed to maintain the patency of the sac but its role is becoming controversial.

**Objective:** The purpose of our study was to compare endoscopic dacrocystorhinostomy with and without stenting in terms of resolution of epiphora and postoperative complications associated with either method.

**Methods:** This randomized clinical trial was conducted in the ENT department BBH hospital Rawalpindi from November 2015 to

April 2020. A hundred patients with Chronic dacryocystitis were randomized into two groups. The stent group received endoscopic DCR with silicone intubation, while the non-stent group received endoscopic DCR without silicone intubation. Both groups were evaluated at a follow-up visit at 1<sup>st</sup>, 6<sup>th</sup> and 12<sup>th</sup> and 24<sup>th</sup> postoperative weeks for anatomical success by patent ostium on irrigation and functional success by the free flow of dye from ostium and postoperative resolution of epiphora (using Munk's score). Complications like intranasal adhesions, Canalicular stenosis, and Sac stenosis were also recorded. Data was entered and analyzed using SPSS 20.

**Results:** Both groups were compared for gender, resolution of epiphora, nasal and ocular irritation, patency of neo-ostium, postoperative synechiae and granulations. Resolution of epiphora was observed in 88.8% patients in the non-stent group and 82.6% patients in the stent group respectively. Reduction in the size of ostium was noted more in the stent group due to postoperative synechia and granulation formation. Benefits of the non-stent group are fewer patients discomfort, less operating time, cost-effectiveness, less stenting related problems and less follow up visits.

**Conclusions:** It is concluded that although there is no significant difference between the post-op results of Endoscopic DCR with or without stenting in terms of resolution of epiphora but DCR without stenting should be the procedure of choice for chronic dacryocystitis because of other factors. The stenting should only be reserved for selected patients.

## 62.HOT EYE TREATED THROUGH NOSE: A Case Report

*Dr Ahmed Hasan Ashfaq, Dr Muhammad Arshad, Dr Nida Riaz*

### Introduction:

- Orbital Cellulitis is significant and worrisome complication of Rhino-sinusitis.
- Orbital Cellulitis, if not treated adequately and timely, can lead to loss of vision.
- Early intervention in the form of endoscopic sinus clearance and medial orbital decompression along with targeted Antibiotics can bring Favorable outcomes

### Discussion:

- Orbital Cellulitis is the most common and frequent complication of Ethmoidal Rhino-sinusitis of all ages, it may occur in following possible situations
  - A. Extension of infection from peri-orbital structures (Paranasal Sinus, Lacrimal sac)
  - B. Direct inoculation of surgery and trauma
  - C. Hematogenous spread from Bacteremia
- Orbital cellulitis present as unilateral swelling of lid and conjunctiva, proptosis, painful ocular moments, diminution of vision, diplopia, sluggish pupillary reflex with associated fever.
- The endoscopic orbital decompression has proven to be watershed and momentous stride in the treatment of orbital cellulitis. It is a safe and quick way of preserving vision and provides added advantage of optic nerve decompression, if required.

**Case Report:**

6 years old boy presented in Ophthalmology OPD with left sided orbital swelling for last 5 days, that is progressive in nature associated with severe pain, high grade fever and restricted ocular moments. Patient had History of Dental infection 10 days back. Patient was initially managed by Ophthalmology Department conservatively but patient's symptoms worsened overtime. Patient was also complaining of blurring of vision. CT-Scan shows peripherally enhancing fluid collection/abscess in left maxillary sinus, ethmoid air cells extending into left orbit along medial canthus involving medial rectus and superior rectus muscle with mild proptosis, preseptal thickening and cervical lymphadenopathy are suggestive of infective etiology. Patient was referred to ENT department where Emergency trans-ethmoidal orbital Decompression was done. 30 ml of pus was drained per operatively. Immediate post operatively patient's symptoms improved significantly.

### 63. Stapedotomy Experience With Microdrill

*Dr Ahmed Hasan Ashfaq, Dr Muhammad Arshad, Dr Nida Riaz*

**Introduction:** Otosclerosis is caused by abnormal bone remodeling in the middle ear. This abnormal remodeling disrupts the ability of sound to travel from middle ear to inner ear. White, middle-aged women are at highest risk. Many cases are thought to be inherited. Otosclerosis is most often caused when one of the bone "stapeses" become fixed.

**Case Report:** A 32-year-old married female housewife, resident of mansehra presented to our OPD with complaints of left sided hearing loss for 6 years associated with tinnitus. On examination, bilateral tympanic membrane was intact and external auditory canal clear. Diagnosis of otosclerosis was formed based on clinical findings and reporting of PTA and Tympanometry. Left stapes was fixed.

**Methodology:** Left sided stapedotomy was performed via permeal approach. A hole in stapes footplate was made with microdrill. 4.5mm piston was inserted between incus and footplate of stapes. Mobility confirmed.

**Result:** Post op there is no complaint of vertigo or tinnitus with significant improvement in hearing loss.

**Conclusion:** In Stapedotomy, there is manipulation and trauma to the inner ear and stapes superstructures resulting in a lower incidence of sensorineural hearing loss compared to stapedectomy. The most important and dangerous steps in surgery are the excision of stapes superstructures and fenestration of footplate, which can be performed by simple perforator, microdrill or CO2 laser. In this case, we used microdrill which is a safe and effective tool especially in thick stapes footplate and obliterative sclerosis.

### 64. Case Report Of Nasopharyngeal Angiofibroma In A Teenager Female, A Rare Finding.

Dr. Sundas

**Background:** Angiofibroma is a rare histologically benign tumor which is unencapsulated, highly vascular tumor.<sup>1</sup> It shows very aggressive behavior due to local invasiveness and is associated with various symptoms.<sup>2</sup> Angiofibroma is almost always seen in young adolescent males.<sup>2</sup> Along main pathogenesis is unknown, but it is considered to be associated with sex hormones mainly testosterone and estradiol.<sup>3</sup> In a study conducted from 1995 to 2012 all patients were male.<sup>4</sup> Major symptoms include nasal obstruction and epistaxis and surgical removal of the tumor as a whole is considered the treatment of choice.<sup>5</sup> There have been very few individual case reports of angiofibroma in female 6-9 which were confirmed with radiological testing and histopathology report of the samples taken.

**Case presentation:** We present a rare case of nasopharyngeal angiofibroma in a young female as confirmed by computed tomography scan findings and histopathology reports of the sample by well qualified pathologists.

**Conclusion:** The case is being reported to increase awareness among medical professionals and encouraging further workup on the pathogenesis of angiofibroma.

**Keywords:** Angiofibroma, rare, young female, benign tumor, epistaxis, nasal Blockage, nasopharyngeal growth.

## 65.Effect of Reperfusion on Time Domain Parameters of Heart Rate Variability

*Dr.Sidra Hamid*

**Objective:** To compare effect of reperfusion by measuring time domain parameters of heart rate variability before and after percutaneous transluminal coronary angioplasty. **Study design:** Quasi experimental study design **Place and Duration:** Department of Clinical Cardiac Electrophysiology, Armed Forces Institute of Cardiology/National Institute of Heart Diseases (AFIC/NIHD), Rawalpindi from January 2014 till January 2015. **Patients and Methods:** 40 patients with coronary artery disease having mean age of  $55.20 \pm 8.03$  years were recruited by non-probability convenience sampling. DMS 300-4A Holter monitors were used to obtain 24 hours ambulatory ECG recording before and within 24 hours after percutaneous transluminal coronary angioplasty. Digital ECG data were transferred to the computer and edited with the help of DMS Cardioscan software. Heart rate variability was analysed in time domains measures. For time domain analysis normal heart rate, SDNN, SDNNi, SDANN, RMSSD

and pNN50 were recorded from 12 lead digital ECG data.

**Results:** The results of our study demonstrated significantly decreased heart rate variability in coronary artery disease patients on comparison of pre and post-angioplasty values only SDNNi was significantly reduced (p-value = 0.035) whereas the reduction in SDNN and pNN50 was statistically insignificant (p-value > 0.05). On the contrary, SDANN and RMSSD displayed slight rise after angioplasty but it was not significant (p-value > 0.05).

**Conclusion:** Reperfusion after percutaneous transluminal coronary angioplasty decreases heart rate variability within 24 hours after the procedure. Whereas, heart rate during the same period after angioplasty increases. This reflects autonomic balance shifts towards sympathetic predominance as indicated by reduced heart rate variability and rise in heart rate. This makes the susceptible patients vulnerable for development of ventricular arrhythmias especially during 24 hours after angioplasty. Therefore, patients with decreased heart rate variability are at risk of ventricular arrhythmogenesis so they may be kept under medical surveillance for at least 24

hours after percutaneous transluminal coronary angioplasty.

**Keywords:** Ischemia, Holter monitoring, coronary artery disease, Heart Rate Variability

## 66.ROLE OF CHEST CT FOR RAPID TRIAGE OF PATIENTS WITH COVID-19 PNEUMONIA

*Dr. Hina Hafeez*

- **Objectives:**To assess the diagnostic performances of chest CT for efficient triage of patients in multiple departments during COVID-19 epidemic, in comparison with reverse transcription polymerase chain reaction (RT-PCR) test.
- 
- **Method:**From March 25<sup>th</sup> to April 25<sup>th</sup> 2021, 500 patients from different departments of a tertiary care hospital were selected who underwent a chest CT and one or several RT-PCR tests. Chest CT were reported as “Definitely COVID+”, “Possible COVID+” or “COVID – “ by experienced radiologists. Sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) were calculated using the final RT-PCR test as standard of reference.
- 
- **Results:** On the RT-PCR test 207 patients were tested positive to COVID-19 whereas 293 were reported negative. Chest CT were reported as “Definitely COVID+” in 222 cases (44.4 %), “Possible COVID+” in 24 cases (4.8%) and “COVID- “ in 254 cases (50.8%).Comparing only Definitely COVID+ category with PCR

results sensitivity, specificity ,PPV and NPV were 90.3%, 88%,84.2% and 92.8%

- 
- **Conclusion:**
- During this time of pandemic ,with limited health resources and increased patient turn over CT chest is simple ,rapid and reliable tool for triaging patients as COVID + or COVID – in order to decrease work load in hospitals.
- 
- **Keywords:**
- Coronavirus; ;Computed Tomography,,RT-PCR; Sensitivity and Specificity, PPV,NPV

## 67.An Unusual Cause of Chronic Abdominal Pain (Lemmel Syndrome)

*Dr. Tanveer Hussain*

**Introduction** : Periapillary \_\_duodenal diverticula (PAD) is the most common cause of Lemmel's syndrome, with an incidence of 1%-27%. It arises within a 2-3 cm radius from the ampulla of Vater. PAD is usually asymptomatic, but in about 5% of cases it can show complications, such as right upper quadrant pain, elevated bilirubin, liver enzymes and/or pancreatic enzymes levels 1. Despite endoscopic retrograde cholangiopancreatography (ERCP) is the gold standard diagnostic test, ultrasound and CT represent the first and fastest diagnostic step. Asymptomatic and incidental PAD requires no treatment or intervention, while surgery should be performed in more severe cases 2. We

report a case of symptomatic Lemmel's syndrome secondary to a giant PAD, arrived at our radiology department from the Emergency Room with acute abdominal pain due to suspected pancreatitis. Ultrasound (US) and contrast-enhanced CT (CECT) was performed. PAD was detected and the patient underwent an esophagogastroduodenoscopy (EGD) to confirm the diagnosis.

**Case Presentation** : A 72-yr-old woman was admitted for ERCP on 28-9-22. She was unwell since 2016, with symptoms of recurrent episodes of upper abdominal pain (biliary) with nausea, vomiting and mostly with fever and evidence of jaundice (thrice) during this period. She informed that these symptoms occurred once in every month or sometime, after two months. She was treated with intravenous fluids, antibiotics and some pain killer, with improvement of her symptoms. Her previous investigations revealed, OGD in 2016, with duodenal (2<sup>nd</sup>) diverticulas(two), Ultrasonography revealed, dilated CBD (11mm) without any evidence of stone, CT abdomen showed, dilated CBD(compressed by periampullary diverticulas), without any stones in GB & CBD. She has leukocytosis, raised CRP, normal bilirubin & enzymes with raised ALP (with abnormal enzymes & bilirubin, thrice), normal pancreatic enzymes. Now before ERCP, her investigations including revealed, blood count raised 12,350/ml (neutrophil 74%). Liver functions were: total bilirubin, 0.4mg/dl, alanine aminotransferase 26 IU/L, alkaline phosphatase 132 IU/L(32-92 ). Abdominal CT

showed large duodenal diverticulum from second part with resultant upstream dilatation of intrahepatic and extrahepatic bile ducts, MRCP revealed, mildly dilated CBD without any calculus or mass. Mild narrowing seen at its distal end with multiple periampullary duodenal diverticulae. ERCP showed two diverticula with central biliary orifice. Selective Biliary cannulation with endoscopic sphincterotomy (EST) was performed to see CBD for other causes but no stone, stricture or obstruction by tumor could be found and plastic stent 10 Fr x 10cm was placed. After ERCP, patient was discharged on 2<sup>nd</sup> day. She visited OPD clinic after 3 months, her symptoms were resolved (completely) with normal liver function tests.

### **68. Transnasal Endoscopic Surgical Repair Of Cerebrospinal Fluid (Csf) Rhinorrhoea By Inferior Turbinate Grafts**

#### **Objective:**

The study aims to evaluate the outcomes of transnasal endoscopic surgical repair of CSF rhinorrhoea.

#### **Materials and Methods:**

After approval from the institutional ethical committee (DME-396-18) and patient consent, a descriptive study of 27 patients with cerebrospinal fluid rhinorrhea was conducted at Aziz Fatimah Trust Hospital Faisalabad from August 21, 2018, to February 7, 2021. Transnasal endoscopic surgical repair of Cerebrospinal fluid leak was performed by using multilayer technique using a graft from the inferior turbinate. The data collected were analyzed

using SPSS 20.

#### **Results:**

The most common site of the CSF leak was the left side of the cribriform plate (n=19, 70%). The most common etiology was spontaneous (n=16, 59%). At the same time, traumatic CSF leak (n=16, 59%) was the second common etiological factor. The surgical procedure used in the study reported a 93% (n=25) success rate. The success rate was 97.5% on revision surgeries.

#### **Conclusion:**

Transnasal endoscopic surgical repair of CSF leak is one of the most effective and safe surgical interventions. Multilayer technique is not only safe but also has lesser complications. Moreover, this minimizes the risk for the development of secondary wounds as compared to other surgical processes.

### **69. Post-Operative Haemorrhage: Conventional Tonsillectomy By Scalpel/Snare Versus Tonsillectomy By Applying Knot At Lower Pole Pedicle**

*Dr. Asher*

#### **Background:**

To evaluate whether applying a knot at lower pole during tonsillectomy reduces post-operative haemorrhage.

#### **Material and Methods:**

In this descriptive study 200 patients who were diagnosed cases of recurrent acute tonsillitis were enrolled. They were divided in two groups, each of 100 patients. In one group tonsillectomy was done by conventional scalpel/snare method. In second group tonsillectomy was done by applying knot at lower pole.

**Results:**

Recurrent acute tonsillitis was most common indication for tonsillectomy (n=185, 92%). Lower pole was most common site for post tonsillectomy haemorrhage (n=15, 8%). There was reduced incidence of post-operative haemorrhage in second group(6%) versus 32% in first group.

**Conclusion:**

Post-operative haemorrhage is significantly low if a knot is applied at lower pole pedicle, during tonsillectomy.

## 70.Impact Of Covid-19 On Elective Surgical Lists In Otorhinolaryngology: An Overview

*Dr. Nousheen*

**Objective:** To study how the COVID-19 is affecting the treatment and management of other ailments. Try to find a strategy to resume elective OR lists.

**Introduction:** We overviewed the effect of COVID-19 on the elective surgical lists of otorhinolaryngology in the ENT Department of Holy Family Hospital, Rawalpindi.

**Materials and Methods:** The data from Jan 2020 to July 2020 was collected. It is a descriptive study analyzing the data, 3 months before and 3 months after the imposition of lockdown in the whole of Pakistan due to a surge in COVID-19 cases. The data was collected from the operation dating register of OPD and elective operative lists of ENT OT. Data were analyzed by Microsoft excel spreadsheet version.

**Results:** There was an overall 92% decrease in the elective surgical procedures done in

the ENT dept. of Holy family Hospital during the COVID-19 lockdown period. The procedures done in the COVID lockdown period were mostly emergency procedures and lifesaving procedures.

**Conclusion:** COVID-19 has badly impacted the elective surgical procedures and in turn the health of the patients presenting to ENT OPD with various diseases which were treated surgically before COVID lockdown.

## 71.Comparison Of Endoscopic Tympanoplasty With Microscopic Tympanoplasty

*Dr. Nousheen*

**Background:** Minimally invasive surgery has recently been developed along with endoscopic techniques. Endoscopic Ear Surgery is becoming popular with its anatomic and physiologic concepts. Tympanoplasty is one of the commonest operations performed for the middle ear. While using the endoscope we can place the graft accurately while avoiding unnecessary post or endaural incision and soft tissue dissections which are mandatory during tympanoplasty using a microscope. Our study was aimed to compare the outcomes of endoscopic and microscopic tympanoplasty in terms of graft uptake, hearing outcome and postoperative pain.

**Methods:** This is a retrospective comparative study of 63 patients who underwent type 1 tympanoplasty at Holy Family Hospital ENT Department from March 2017 to March 2020. The subjects

were classified into 2 groups; Endoscopic tympanoplasty (ET, n=30), Microscopic Tympanoplasty (MT, n=33). Type 1 Tympanoplasty, was the procedure done on patients of both the groups. Demographic data, perforation size of the tympanic membrane at preoperative state, pure tone audiometric results preoperatively and 3 months postoperatively, operation time, sequential postoperative pain scale (NRS-11), and graft success rate were evaluated. .

**Results :** The perforation size of the tympanic membrane in the Endoscopic group and the microscopic group was nearly the same ( $p=.877$ ). Pre and post-operative air-bone gaps including air and bone conduction thresholds were not significantly different between the two groups. The graft success rate in the endoscopic and Microscopic group was 93.3% and 63.3% respectively; the values were significantly different ( $p=0.0046$ ). Immediate and 6 hours postoperative pain was similar in both the groups, however pain on 1st postoperative day was significantly lower in the endoscopic group.

**Conclusion:** We can do minimal invasive tympanoplasty with the help of endoscopes with better graft success rate, less preoperative time, and less postoperative pain.

## 72.Role Of Microscope In Total Thyroidectomy For Multinodular Goiter

DR HAITHAM AKAASH

**Objective:** To compare the incidence of post-operative hypocalcemia and RLN injury in patients undergoing thyroidectomy for multinodular goiter with versus without microscope.

**Material and Methods:** The randomized controlled study was conducted in the department of Otorhinolaryngology, HBS Teaching Hospital, Islamabad over 1 year from Jan 2017 to Dec 2017. A total of 92 patients both males and females aged between 18 to 70 years planned for thyroidectomy for nodular thyroid enlargement. These cases were randomly assigned into 2 treatment arms. Patients in one group underwent conventional thyroidectomy while those in the other group underwent microscopic thyroidectomy. The results were analyzed in terms of frequency of post-operative hypocalcemia and RLN injury which were observed and compared between the groups. An informed written consent to participate in the study was taken from every patient.

**Results:** Their mean age of the patients was  $36.4 \pm 13.4$  years. We observed a female predominance among these patients with male to female ratio of 1:4.1. Following surgery, the frequency of post-operative hypocalcemia (4.3% vs. 15.2%;  $p$ -value=0.079) and RLN injury (2.2% vs. 6.5%;  $p$ -value=0.307) was lower in patients who underwent microscopic thyroidectomy as compared to conventional thyroidectomy.

**Conclusion:** Microscopic thyroidectomy was associated with significantly lower frequency of post-operative hypoparathyroidism and recurrent laryngeal nerve injury. It is therefore advisable that

microscopic thyroidectomy should be preferred in future surgical practice provided the necessary hardware and skills are available. Keywords: Thyroidectomy, Complications, Microscopic Surgery

### **73.Comparison of Transseptal Suture and Anterior Nasal Packing after Septoplasty in Terms of Postoperative Crusting**

*Dr. Haitham Akaash*

**Objective:** The objective of this study was to compare transseptal suture and anterior nasal packing after septoplasty in terms of frequency of postoperative crusting.

**Design:** It's a randomized controlled trial.

**Study Settings:** Research was conducted at Department of ENT and Head & Neck Surgery Abbas Institute of Medical Sciences (AIMS) Muzaffarabad, Azad Kashmir for a period of six months from 26/5/2020 to 25/11/2020.

**Patients and Methods:** This study involved 132 patients of both the genders undergoing septoplasty for deviated nasal septum. These patients were randomly divided into two groups. Patients in Group-A were treated with transseptal suturing of mucoperichondrial flaps while patients in Group-B were treated with anterior nasal packing. A written informed consent was obtained from every patient.

**Results:** The mean age of patients was  $28.44 \pm 6.16$  years in the range of 18 years to 40 years. The study group had 53 (40.2%)

female and 79 (59.8%) male with a female to male ratio of 1:1.5. In terms of gender distribution and mean age both the groups were comparable (p-value=0.859 and 0.978 respectively). In patients treated with transseptal suturing, the frequency of post-operative nasal crusting was significantly lower (4.5% vs. 27.3%;  $p=0.000$ ) as compared to anterior nasal packing. This difference was observed across all age and gender groups.

**Conclusion:** This study has reported transseptal suturing to be better than anterior nasal packing in terms of significantly lower frequency of post-operative nasal crusting regardless of patient's age and gender in patients undergoing septoplasty for deviated nasal septum. The results of this study thus advocate the use of transseptal suturing in future practice.

**Keywords:** Deviated Nasal Septum, Septoplasty, Transseptal Suturing, Anterior Nasal Packing, Post-Operative Nasal Crusting.

### **74.Comparison of postoperative Synechiae formation between Conventional and Endoscopic Septoplasty for Deviated Nasal Septum: a Randomized Clinical Trial**

**Objective:** To compare the efficacy of endoscopic and conventional septoplasty in terms of frequency of

postoperative synechiae formation. Study Design: A Randomized Clinical Trial. Place and Duration: This study was conducted in the ENT department Holy Family Hospital Rawalpindi from 1st November 2015 to 30th April 2016.

**Methodology:** A total of 90 patients with Deviated Nasal Septum (DNS) causing permanent nasal obstruction were randomized into two groups. Group A patients underwent conventional septoplasty and endoscopic septoplasty was performed on Group B patients. Both groups were evaluated for postoperative synechiae formation on 8th postoperative week.

**Results:** Both groups were comparable for age, gender and types of the deviated nasal septum. Overall synechiae formation was observed in 11.1% in the conventional septoplasty after 8 weeks of follow up, while none of the patients developed synechiae in the endoscopic septoplasty, the overall effect was significant, p-value .001. Both groups showed improvement in nasal obstruction from baseline.

**Conclusion:** Endoscopic septoplasty was found superior to conventional septoplasty in terms of avoiding postoperative synechiae in patients undergoing surgical correction for deviated nasal septum regardless of patient's age and gender.

distress.

## 75.Perinatal Outcome in Women at Term with Reduced Fetal Movements

Shama Bashir

### Introduction:

Fetal movement is a sign of life and is used as an indicator of good fetal health.<sup>1</sup> Fetal movements are perceived by mother as any flutter, kick, roll or swish. Well known sign of fetal viability and vitality is the presence of fetal movements (FM) and good fetal movements are indicator of integrity of the fetal musculoskeletal and central nervous system. Reduced fetal movement (RFM) is a perception of decrease in the in utero fetal activity by the mother and it is associated with poor outcomes such as intra-uterine death, stillbirth. The rationale of study is to find the perinatal outcome and mode of delivery in women at term with reduced fetal movements in our setup. As no local study is found and international, data is lacking on this topic

**Objective:** To find out the impact of perception of reduced fetal movements on mode of delivery and poor perinatal outcome in pregnant women at term.

**Methodology:** This was a Descriptive case series. The study was completed in six months from Feb 10th, 2019 till August 10th, 2019 in department of Gynecology and Obstetrics, Unit-II holy family hospital Rawalpindi after ethical approval from IRB. Data was collected for demographics (e.g. name and age), contact details, pregnancy related details (e.g. parity, gestational age). Females meeting inclusion criteria were enrolled through department of Obstetrics and Gynecology, Unit-II holy family hospital Rawalpindi. Their detail evaluation and clinical examination was done. They were observed till their outcome. Induction of labor was done if there were no uterine contractions along with decreased fetal movement. C-section was done if there was any indication that was decided by senior gynecologist consultant. Apgar score as per operational definition was calculated at 1st and 5th minutes. All data was collected by researcher herself on prescribed proforma. All data that was collected was entered and then analyzed by using SPSS version 21.0.

**Results:** The mean age of all cases was  $28.16 \pm 4.05$  with minimum and maximum age as 18 and 35 years. The mean weight, height and BMI was  $90.17 \pm 17.06$  (kg),  $1.81 \pm 0.17$

(m) and  $27.44 \pm 2.56$  respectively. The mean gestational age was  $38.88 \pm 1.45$  weeks with range of 4 weeks (37 to 41 weeks). A total of 109(53.2%) females needed induction of labour, 33(16.1%) had C-section and Apgar score  $< 7$  was noted in 23(11.2%) of the neonates.

**Conclusion:** We conclude that the frequency of Apgar score  $< 7$  was somehow high in patients those presented with decreased fetal movements. So in future females who present with reduced fetal movement even with no other fetal abnormality, should be managed as being at high risk of placental insufficiency and should be assessed and treated immediately. By preventive and therapeutic strategies we can reduce the related morbidity such as maternal stress, low Apgar score and NICU admission.

**Keywords:** Pregnancy, Reduced fetal movements, Apgar score, Perinatal outcome, Term

## 76.Frequency and Culture Sensitivity of Febrile Neutropenic Episodes in Paediatric Patients of Acute Lymphoblastic Leukemia on Chemotherapy

Saima Akhtar

**Background:** To determine frequency of febrile neutropenia episodes (FN) in patients of acute lymphoblastic leukaemia (ALL) on chemotherapy and to study different type of organisms isolated in them along with their sensitivity to different antibiotics.

**Methods:** In this descriptive study children of either gender diagnosis of ALL and on any one of the initial four phase of chemotherapy including induction, consolidation, interim maintenance and delayed intensification were followed prospectively from start till end of that particular phase. The chemotherapy protocol used in the centre is BFM protocol. Patients who developed fever ( $\geq 38^{\circ}\text{C}$ ) during this time and turned out to be neutropenic ( $\text{ANC} \leq 500/\text{mm}^3$ ) underwent blood culture (on Bectec). Antimicrobial susceptibility profile was done by Kirby Bauer disc diffusion method on Muller Hinton agar, according to CLSI 2006 guidelines.

**Results:** Mean age of children was  $5.5(\pm 3.0)$  years. Of 94 ALL patients enrolled in the current study, 46% were younger than 5 years and 73% were males. Out of 94 37 (39%) developed fever and neutropenia. The mean (SD) temperature of all the children was  $38.9 (\pm 0.3)^{\circ}\text{C}$ . The mean (SD) absolute neutrophil count (ANC) was  $264.0 (\pm 149.2)/\text{mm}^3$ . Out of 37 children who developed febrile neutropenia, 25% had positive blood cultures. The most common isolate was *Klebsiella* (44.4%), followed by *Pseudomonas aeruginosa* (33.3%) and *Staphylococcus aureus* (22.2%). *Klebsiella*

was sensitive to most of the antibiotics tested except cephalosporins. Sensitivity of *Pseudomonas* was 100% to ceftazidime and cefotaxime while *Staph. aureus* was 100% sensitive to ceftazidime, imipenem and ciprofloxacin

**Conclusion:** Nearly two-fifths of the children with ALL developed febrile neutropenia. A quarter of them showed positive blood cultures. The most common pathogen found in our study was *Klebsiella*, followed by *Pseudomonas* and *Staphylococcus aureus*. Most of the antibiotics tested for the *Klebsiella* were shown to be effective except cephalosporins. For *Pseudomonas*, Cefazidime and Cefotaxime were 100% sensitive, while for *Staphylococcus* Cefazidime, Imipenem and Ciprofloxacin showed 100% sensitivity. Key words: Febrile neutropenia, Acute Lymphoblastic Leukaemia, Chemotherapy.

## 77. Exploring the curriculum viability inhibitors in an undergraduate medical curriculum

Dr. Ismat Batool

**BACKGROUND:** A curriculum is dynamic entity and hence, metaphorically, can be considered 'alive'. Curricular diseases may impair its quality and hence its viability. The quality of a curriculum is typically assessed against certain quality

standards only. This approach does not identify the inhibitors impeding the achievement of quality standards. The purpose of this study is to identify not only standards but also inhibitors of curriculum quality, allowing for a more comprehensive assessment of what we coin 'curriculum viability'.

**METHODS:** This is a mixed method study. For quantitative data teacher's perceptions were collected through validated questionnaire measuring viability inhibitors of curriculum. For qualitative data a focus group discussion among 6-8 faculty members was done to find out the possible solutions to these curriculum viability inhibitors identified.

**RESULT:** While all studies reported on standards of quality, only two studies described both standards and inhibitors of quality. These inhibitors were related to educational content and strategy, students, faculty, assessment, educational/work environment, communication, technology and leadership.

**CONCLUSION:** The identification of inhibitors followed by focused group discussion helped to find potential solutions to improve quality of curriculum under review. Identification of inhibitors guides us to find possible solutions in contrast to just evaluating standards whether they are achieved or not, and in this way we can attain standards of curriculum quality by eliminating these inhibitors. It seems that identification of inhibitors is the most important thing during curriculum evaluation.

## **78. Outcome measure of early and late stimulation of labour in women presenting with prelabour rupture of membrane at term**

Dr. Nighat Naheed

**INTRODUCTION:** Prelabour rupture of membranes (PROM) refers to the women who is at or beyond 37 weeks of gestation and has presented with rupture of the fetal membranes prior to the onset of labor. At term programmed cell death and activation of catabolic enzymes, such as collagenase and mechanical forces results in rupture of membranes.<sup>[1]</sup>

The incidence of PROM is about 5%-10% of all term deliveries. A women

with PROM is at risk of chorioamnionitis, postpartum infections, endometritis and death.<sup>[2]</sup> The time period between rupture of membranes and onset of labour is referred as latency period.<sup>[3]</sup>

Early stimulation of labour as compared to expectant management decreases the risk of chorioamnionitis without increasing the caesarean delivery rate and many evidence support this idea.<sup>[4]</sup>

The risk of chorioamnionitis in PROM is >10% and increases upto 40% after 24 hours of PROM.<sup>[5]</sup>

PROM occurs when intrauterine pressure exceeds the fetal membrane resistance. This happens as a result of weakening of membranes either congenitally or acquired. At term PROM can be a physiological variation rather than a pathological event.<sup>[6]</sup>

The present study is intended to find out whether early stimulation will be of any benefit in terms of reducing the hospital stay, maternal sepsis and improvement of fetal outcome in terms of apgar score and NICU admission.

#### **OBJECTIVES:**

1. To compare the effects of early and late stimulation in pre labor rupture of membranes in terms of maternal outcomes in women presenting at term.
2. To compare the effects of early and late stimulation in prelabor rupture of membranes in term of

fetal outcome women presenting at term.

#### **METHODOLOGY :**

It will be a randomized controlled trial .Non probability convenience sampling will be done followed by random allocation of patients in both groups . 146 patients with PROM at term will be included in the study after detailed history and examination. Patients will be divided into two equal groups.

**EXPERIMENTAL GROUP :** Early stimulation after 6 hours of PROM.

**CONTROL GROUP :** late stimulation after 24 hours of PROM.

Re-stimulation was done after 6 hours of initial stimulation. Stimulation to initiation of labour and delivery time will be noted. Fetal outcome in the form of apgar score and need for NICU admission will be recorded.

Assessment of chorioamnionitis will be done in first 6 hours after delivery. Clinical parameters i.e fever, maternal tachycardia will be noted.

**RESULTS :** Results will be displayed after completion of the trial .

## **79. Ventricular Tachycardia as a first presentation of Arrhythmogenic Right Ventricular Cardiomyopathy (ARVC) in a previously asymptomatic Sexagenarian**

Dr. Muhammad Asad

Arrhythmogenic right ventricular dysplasia/cardiomyopathy (ARVD/C) is characterised by morphological and histological changes in the ventricles. Progressive myocyte loss and fibrofatty tissue replacement, producing islands of scar, can lead to reentrant ventricular tachycardia and sudden cardiac death. It usually presents as chest pain, palpitations, heart failure, or syncope. The majority of cases are seen before the age of 40. Ventricular arrhythmia as a first presentation in the elderly is seen infrequently. We present a case of a previously asymptomatic 62-year-old gentleman who had an episode of ventricular tachycardia as the first manifestation of ARVC without having any positive family history for this disease. He was managed with amiodarone and was later planned for an implantable cardiac defibrillator (ICD).

## **80. Frequency of Undiagnosed Diabetes Mellitus in patients with Acute**

## **Coronary Syndrome** *Sara Mustafa*

**Introduction :** The prevalence of and mortality from all forms of cardiovascular diseases is two- to eight- fold higher in diabetic individuals as compared with their non-diabetic counterparts. DM is often unrecognized and uncontrolled in patient who present with ACS.

**Methodology :** Cross-sectional descriptive study spread over one year. Non-probability consecutive sampling was used with Confidence level = 95%, Anticipated population proportion (P) = 9.7%, Absolute precision required (d)= 5%, Sample size (n) = 135. Patient of either gender, age above 20 years without prior history of DM presenting with ACS were included. FPG tests were performed on study patients on three consecutive days (to minimize the possibility of stress hyperglycemia).

Patients who had elevated glucose values at fasting ( $\geq 7.0$ mmol/l) on three consecutive days were subdivided based on HbA1c values.

### **Results :**

FPG (mmol/l)	Frequency	Percentage
Undiagnosed DM	17	12.6
Non-Diabetic	118	87.4
Total	135	100

**Conclusion :** DM is frequently not diagnosed until complications appear, and approximately one-third of all people with DM may be undiagnosed. 12.6% (17 out of total 135) patients who did not had a

previous diagnosis of DM and presented with ACS met criteria for a new diagnosis of DM.

### 81.Diagnostic Accuracy of Right Liver Lobe Diameter/ Albumin ratio for Non-invasive detection of Oesophageal Varices in Hepatitis C related Cirrhosis

*Sana Ahmed, Noma Sarwar, Shahzad Hafeez, Nasir Abbas, Naz Akram, Rohma Ahmed*

**Introduction :** Chronic liver disease ultimately leads to liver cirrhosis. One of the major complications of liver cirrhosis is portal hypertension, often presenting mainly with upper GI bleed due to ruptured oesophageal varices. Since the high mortality associated with varices can be prevented by early detection and timely treatment, current guidelines recommend Upper GI endoscopy as the Gold Standard investigation for presence of varices in patients diagnosed with liver cirrhosis. Many laboratory parameters have been studied for non-endoscopic detection of oesophageal varices. The objective of our study was to determine diagnostic accuracy of Right Liver Lobe diameter/Albumin concentration ratio as a noninvasive parameter for detection of oesophageal varices in liver cirrhosis due to Hepatitis C, compared to upper GI endoscopy which is the gold standard test.

**Methodology :** The study was a descriptive cross-sectional study carried out in Medical unit 4 of Services Hospital Lahore. Non-probability consecutive sampling technique

was used. Patients included were of 18 to 80 years of age and from both genders that were diagnosed with Hepatitis C leading to liver cirrhosis at least 6 months ago with coarse echotexture of liver parenchyma on abdominal ultrasound. 165 patients with hepatitis C leading to liver cirrhosis fulfilling the inclusion/exclusion criteria were enrolled. Right liver lobe diameter was seen by the same single radiologist by transabdominal ultrasonography. Serum albumin levels of each patient was obtained from the same laboratory and right liver lobe diameter/albumin ratio calculated. Upper GI endoscopy was performed in these selected patients by a single endoscopist and presence or absence of oesophageal varices was documented. The data was collected, compiled in the computer and analyzed.

### Results :

TABLE No. 1  
AGE DISTRIBUTION  
(n=165)

Age(in years)	No. of patients	%
18-50	81	49.09
51-80	84	50.91
Total	165	100
Mean±SD	49.21±10.88	

TABLE No. 2  
GENDER DISTRIBUTION  
(n=165)

Gender	No. of patients	%
Male	87	52.73
Female	78	47.27
Total	165	100

TABLE No. 4  
DIAGNOSTIC ACCURACY OF RIGHT LIVER LOBE DIAMETER/ALBUMIN  
CONCENTRATION RATIO FOR DETECTION OF OESOPHAGEAL VARICES  
IN LIVER CIRRHOSIS DUE TO HEPATITIS C. (n=165)

Right liver lobe diameter/albumin concentration ratio	Upper GI Endoscopy		Total
	Oesophageal varices (Positive)	Oesophageal varices (Negative)	
Positive	True positive(a) 59 (35.76%)	False positive (b) 13 (7.88%)	a + b 72(43.64%)
Negative	False negative(c) 9 (4.45%)	True negative (d) 84 (50.91%)	c + d 93 (56.36%)
Total	a + c 68 (58.79%)	b + d 97 (41.21%)	165 (100%)

Sensitivity =  $a / (a + c) \times 100 = 86.76\%$

Specificity =  $d / (d + b) \times 100 = 86.60\%$

Positive predictive value =  $a / (a + b) \times 100 = 81.94\%$

Negative predictive value =  $d / (d + c) \times 100 = 90.32\%$

Accuracy rate =  $a + d / (a + d + b + c) \times 100 = 86.67\%$

**Conclusion :** The use of Right liver lobe diameter/albumin concentration ratio for detection of oesophageal varices in patients with liver cirrhosis due to hepatitis C is an accurate diagnostic modality, and thus appears to be promising as a noninvasive method to detect patients with a high probability of having oesophageal varices. It can therefore be used to restrict the use of upper GI endoscopy to only high risk patients.

## 82. Pattern Of Thrombocytopenia With Timings Of Plasma Leakage In Patients Presenting With Dengue Haemorrhagic Fever During Dengue Epidemic 2019 – An Experience From Rawalpindi Medical University

Dr. Javeria

**BACKGROUND:** Dengue fever is an arthropod borne infection responsible for major epidemics involving Pakistan and South-Asia over past few years. Plasma leakage leading to shock is the most dreaded manifestation of the disease.

**AIM:** This study was designed to collect evidence about timing and pattern of plasma leakage with pattern of thrombocytopenia in patients presenting with dengue hemorrhagic fever during dengue epidemic 2019 in Rawalpindi city.

**MATERIAL AND METHODS:** This was a cross-sectional study conducted at Department of Medicine, District Head Quarter Hospital, Rawalpindi, Pakistan from August to November 2019 in which patients who were labeled and managed as dengue hemorrhagic fever on the basis of clinical presentation, positive serology and ultrasonographic evidence of plasma leakage were included. Demographic profile, clinical features with duration, laboratory investigations including serological tests and ultrasonographic findings of all patients were recorded on a self-structured proforma. Data was analyzed by SPSS v23.0.

**RESULTS:** 295 patients with dengue hemorrhagic fever were enrolled in the study. There were 212 males and 83 females (male to female ratio of 2.5:1). Mean age of all participants was 35.9 years (range 13-75 years). 38.3% Patients were having platelet count more than 80,000/ul at day of leakage, 45.8% were having platelets between 40,000/ul to 80,000/ul, and only 14.5% patients were having platelets less than 40,000/ul at day of leakage. However, 65.9% patients showed evidence of plasma leakage on ultrasound between 4<sup>th</sup> to 7<sup>th</sup> day of illness, and 17.3% between 8<sup>th</sup> to 10<sup>th</sup> day of illness respectively. On the basis of Serology & NS1 antigen 50.2% of our DHF patients were labelled as primary dengue infection and 39% were labelled as secondary dengue.

While 10.5% of our patients had triple negative dengue serology/NS1 but were labelled as dengue hemorrhagic fever patients on the basis of clinical presentation and evidence of plasma leakage on ultrasonography. 49.8% of our patients had pleural effusion, 30.5% had ascites, while 18% had evidence of both ascites and pleural effusion on ultrasound. Gall bladder wall thickness was observed only in 1.7% patients.

**CONCLUSION:** Most of the patients at day of leakage were have platelets counts between 40,000-80,000 /ul. However most common days of leakage was observed between 4th to 7th day of illness Thus suggesting early hospitalization and strict monitoring during this period. Plasma leakage was observed more commonly in primary as compared to secondary infection Continued studies into the pathogenesis and prognosis of patients with DHF are warranted.

**KEYWORDS:** Plasma leakage, Thrombocytopenia, dengue hemorrhagic fever.

### **83. Anti-Obesity Effects of Aloe Vera Whole Leaf and Sitagliptin in Diabetic Rats** **Dr. Sobia Javaid**

#### **Background:**

Aloe Vera, a medicinal herb, has been used for centuries in therapeutics and cosmetology.

#### **Objective:**

To compare Antiobesity effects of Aloe Vera whole leaf with new antidiabetic drug,

Sitagliptin on streptozotcin induced diabetic rats.

#### **Study Design:**

Randomized Control Trial.

**Settings:** Department of Pharmacology, Islamic International Medical College, Rawalpindi in collaboration with NIH, Islamabad, Pakistan.

**Duration:** One year from September 2019 to August 2020.

**Methodology:** Young Sprague Dawley rats, n=40, weighing 220-250 grams were taken and randomly divided into Groups A and B. Group B was fed on high fat diet for two weeks to develop insulin resistance. After induction of diabetes, with low dose streptozotocin, Group B was subdivided into: Group B1 (Diabetic Control), Group B2 (Aloe Vera whole Leaf treated), Group B3 (Sitagliptin treated). Body weight was measured in all rats every week to assess progress of study, and finally on completion of study (on Day 60). SPSS version 25 was applied for statistical analysis. One-way ANOVA test was used for assessing any difference in the mean values. Post-hoc Turkey analysis was done to compare inter-group mean differences. P value of <0.05 was considered significant.

**Results:** Mean body weight of Group A was 235.50g, Group B1 272.00g, B2 249.90g and B3 248.70g respectively. Rats in each of Group B2 and Group B3 had significant reduction in body weight compared to Group B1, with no statistically significant intergroup differences in results of Group B2 and B3.

**Conclusion:** Aloe Vera whole leaf extract significantly decreased body weight with almost similar efficacy to Sitagliptin in diabetic rats.

**Keywords:** Aloe Vera, Hypoglycemic agents, Sitagliptin, Streptozotocin.

#### **84. Quality Care Through Clinical Audit: Assessing Knowledge of Triage and Response Time In The Emergency Department Of A University Affiliated Teaching Hospital**

*Aimen Malik<sup>1</sup>, Mariam Ejaz<sup>2</sup>, Maria Arshad<sup>3</sup>, Mariam Mukhtar<sup>4</sup>, Sohaib Iftikhar<sup>5</sup>, Usman Qureshi<sup>6</sup>*

**Introduction:** Triageing is the initial critical step towards patient safety and care. Correct triaging in emergency department not just improves patient management but also boosts efficiency of the health care staff. Many patients were not being triaged properly, it became apparent through observation. Consequently, an objective was developed to evaluate the healthcare staff's triage expertise. Furthermore, the time at which each patient was initially examined in each zone was measured, as well as the accuracy of the triaging. This was compared to the World Health Organization's (WHO) recommendations.

**Methodology:** The Holy Family Hospital's medical staff (doctors and nurses) was subjected to an audit to gauge their triage expertise over the course of a week in August 2022. The audit team filled out proformas that had been predesigned. In addition, emergency patients were examined at the same time for proper

triaging and response times. The outcomes were contrasted with the WHO recommendations. After the initial observations few interventions were made including Teaching of nurses and doctors. Additionally, there were posters showing the comparable standards all over the emergency room. An improvement plan was given, noting the urgent need for at least two doctors and staff nurses to be available at once for triaging and the urgently needed missing equipment. This was followed by a re-audit in September, 2022.

**Results:** 46 members of the medical staff were considered for their knowledge. It was found that just 35% of the medical team genuinely knew everything there was to know about triage. In the remaining 65% of the medical staff, 27% did not know the triage criteria, 30% did not know the reaction time, and 43% did not know everything there was to know about triage.

48 patients in the emergency room were also assessed for proper triage, response time, and whether they received wait time information. Surprisingly, only 17% of the patients received the incorrect triage, and only 19% were reviewed after the recommendations' specified response time. Only 29% of the patients received information on the waiting times that were set for each zone.

**Results of Re-Audit:** Upon re-auditing an improvement of 15% was observed in the knowledge on triage. But 50% of the health care staff members,

including majorly the junior doctors and staff nurses, still lacked the complete knowledge on triage. Furthermore, this time 10% triaged incorrectly. Brilliantly, 100% of the patients were inspected according to the provided response time and 100% of the patients were informed of the given waiting time in every zone.

**Analysis:** Increase of 15% of the complete knowledge on triage in the healthcare staff, 7% of correct triaging of patients and 19% of correct response time by the healthcare staff was analyzed. Furthermore, 71% more patients were informed of the waiting time following re-audit, proving an overall significant improvement statistically ( $p < 0.05$ )

**CONCLUSION:** After receiving sufficient education about the WHO emergency triage guidelines, a noticeable improvement was seen. However, these advances are only going to get better with regular training sessions, the appointment of at least two doctors and a staff nurse at a time for triaging, and the provision of the essential missing equipment.

## 85. Effectiveness and Safety of Extracapsular Dissection for Benign Tumors of the Parotid

*Faiza Firdous*

**Introduction:** Salivary gland tumors constitute 3% to 10% of all cancers in the head and neck region.<sup>1-3</sup> Parotid gland is the most commonly involved salivary gland and fortunately majority of the parotid growths have a benign histology.<sup>4-6</sup> Of the benign parotid lesions, Pleomorphic adenoma and Warthin tumor are commonly encountered.<sup>7,8</sup> Extracapsular dissection and superficial parotidectomy are the preferred modality for the surgical management of benign tumors of the parotid. This led us to investigate the effectiveness and safety of extracapsular dissection in a tertiary health care unit of Pakistan, in terms of surgical complications and recurrence.

**Patients and Methods:** This case series was conducted in the Department of Surgery, Rawalpindi Medical University, Rawalpindi. The hospital records of all 50 patients who underwent extracapsular dissection with a diagnosis of either Pleomorphic adenoma or Warthin tumor during the period January 2010 till December 2019, were reviewed retrospectively. Data regarding demographics, tumor, complications and recurrence was collected.

**Results:** Out of 50 patients, 40 were males and 10 were females with age ranging from 26 to 52 years and mean age of 42 years. 44 of 50 parotid lumps were diagnosed as Pleomorphic adenoma and 6 were cases of Warthin tumor. The range of lesion size was 1.5 to 3 cm. 15 (30%) patients suffered from transient facial nerve weakness, whereas

only 1 (2%) sustained a facial nerve injury which required repair. There was no case of Frey syndrome, sialoceles and hematoma, however, salivary fistula was seen in 1 (2%) patient. Capsule rupture during surgery occurred in 15 (30%) patients and recurrence was seen in only 1 patient (2%).

**Conclusion:** Extracapsular dissection has low recurrence rate, very few complications and is a safe and effective treatment for Pleomorphic adenoma and Warthin tumor.

**Keywords:** Extracapsular dissection, Pleomorphic adenoma, Warthin tumor

### **86. Comparison Of 10% Topical Metronidazole And Oral Metronidazole In Hemorrhoidectomy In Terms Of Post-Operative Pain**

Dr Faiza Firdous

**Introduction:** Hemorrhoidal disease is defined as symptomatic displacement of the anal cushions. Approximately one out of ten patients need surgery as a definitive treatment for hemorrhoidal disease. The single most important challenge after hemorrhoidectomy is the management of postoperative pain. In this study the objective was to compare 10% topical metronidazole versus oral metronidazole in hemorrhoidectomy in terms of post-operative pain

**Methodology:** It was randomized control trial, conducted at Surgical unit 1, Holy Family Hospital Rawalpindi for 6 months

duration. After meeting the inclusion criteria 60 patients were enrolled. Then patients were randomly divided into two groups. Patients in both groups undergo standard Open hemorrhoidectomy. One group is treated with oral metronidazole 400 mg thrice a day and in group-B patients 10% metronidazole paste was applied soon after surgery and thrice daily. The outcome was noted in both groups. All the collected data was entered and analyzed on SPSS version 21.

**Results:** In this study the mean age of the patients was  $45.25 \pm 11.64$  years, male to female ratio of the patients was 4:1. In this study among group A patients the mean value of total average pain score was  $6.86 \pm 0.79$  whereas among group B patients the mean value of total average pain score was  $5.96 \pm 0.956$  ( $p\text{-value} = < 0.001$ ).

**Conclusion:** This study concluded that 10% topical metronidazole showed significantly better outcome than to oral metronidazole in hemorrhoidectomy in terms of mean post-operative pain

**Keywords:** Oral Metronidazole, 10% Topical Metronidazole, Hemorrhoidectomy, Post-operative Pain

### **87. Effect of IL-28 B Polymorphisms on Early Virological Response (EVR) in Chronic Hepatitis C Patients Treated with Interferon and Ribavirin**

Dr. Madeeha Nzazar,

**Background:** To determine the frequency of EVR in chronic hepatitis C (CHC) patients treated with Interferon and Ribavirin and to compare the effect of IL-28B SNP rs12979860 (CC and non CC genotypes) on frequency of EVR.

**METHODS:** In this cross-sectional study 100 patients with Chronic Hepatitis C (CHC) with genotype 3 who received Interferon and Ribavirin in the standard doses were categorized in two groups depending upon the IL-28B SNP rs12979860 CC and non CC genotypes. Results of Qualitative PCR for HCV RNA after 12 weeks of treatment and EVR were entered. Frequency of EVR in the two groups (CC and non CC) was compared.

**RESULTS:** Among the 100 patients with Chronic Hepatitis C treated with Interferon and Ribavirin, 72 patients achieved EVR (72%). Out of the 100 patients, 52 had CC genotype and 48 had non-CC genotype (40 with CT and 8 with TT genotype). In the CC group 47 out of 52 patients achieved EVR (90%) while in the non-CC group 25 out of 48 patients achieved EVR (52%). The p value in our study was 0.00 Conclusion: The frequency of EVR is 72% in Chronic Hepatitis C patients infected with genotype 3 treated with Interferon and Ribavirin which is comparable with Pegylated Interferon and Ribavirin. Patients with IL-28B SNP rs12979860 CC genotype have a better chance to achieve EVR (90%) as compared to the non-CC genotype (52%).

## 88.Sle As A Cause Of Secondry Fahr Disease

*Muhammad Salman Mushtaq*

Fahr disease is a movement disorder characterized by calcium deposition in different parts of brain. It could be familial or secondary to a number of metabolic or infective causes. The age of presentation is bimodal and is according to the etiology.

Here we present a case of 21 year old Pakistani female. She presented with sudden left sided weakness and dysphasia. On examination there was generalized rigidity of both upper and lower limbs. Power was unilaterally decreased on left side and her speech was dysarthria. After detailed history, examination and investigations she was diagnosed as a case of Fahr syndrome secondary to Systemic lupus erythematosus. Fahr syndrome has very heterogeneous clinical presentations and etiologies. Therefore, it's very important to diagnose it early so that it can be properly treated.

## 89.Transient Elastography in Clinical Detection of Liver Cirrhosis: A Systematic Review and Meta-analysis

*DR. SAIMA SHAFIAT*

**Background/Aims:** Transient elastography is a noninvasive method for measuring liver fibrosis. This meta-analysis assesses the diagnostic performance of transient elastography of detecting liver cirrhosis in patients with liver disease.

**Patients and Methods:** We searched MEDLINE, Cochrane, EMBASE databases until Jan 31, 2015, using the following search terms: elastography and liver cirrhosis. Included studies assessed patients with a diagnosis of liver cirrhosis, with an index test of transient elastography, and with the reference standard being a histopathological exam by liver biopsy. Sensitivity analysis and

assessment of risk of bias and publication bias were performed.

**Results:** Fifty-seven studies were included in the meta-analysis with a total of 10,504 patients. The pooled estimate for the sensitivity of transient elastography for detecting liver fibrosis was 81% and the specificity was 88%. The imputed diagnostic odds ratio (DOR) was 26.08 and the area under the receiver-operating characteristic (AUROC) curve was 0.931.

**Conclusion:** Our findings indicate that transient elastography shows good sensitivity, specificity and a high accuracy for detecting liver cirrhosis. Transient elastography can be used as an additional method for the clinical diagnosis of liver fibrosis and cirrhosis.

**Key Words:** Cirrhosis, liver fibrosis, sensitivity, specificity, transient change to elastography

## 90. Prevalence and Biochemical Associations of Fever in Adults With Reverse Transcription Polymerase Chain Reaction Proven Coronavirus Disease Presenting at Tertiary Care Hospitals in Rawalpindi

*Dr. Faramarz Khan*

**Background :** Clinically most apparent symptoms of COVID-19 include fever and cough, which in some patients show a worsening trend but are completely non-apparent in patients who present with an asymptomatic course of the disease. The aim of this study was to identify clinical and biochemical differences among polymerase chain reaction (PCR) positive patients who are either febrile or afebrile.

**Methods:** This study was conducted in Rawalpindi Medical University and Allied Hospitals between September and December 2020. All patients who tested positive for reverse transcription polymerase chain reaction (RT-PCR) COVID-19 were included in the study. After evaluation of 146 patients, 100 were selected, and with a response rate of 97%, a total of 97 patients were included in the final analysis. Depending on the presence of fever, the participants were divided into two groups. Both groups were then compared for baseline vitals and laboratory investigations. Data was entered and analyzed in SPSS v23.0 (IBM Inc., Armonk, New York).

**Results :** Among the 97 patients, 66 (68%) of the participants were male, and 31 (32%) were females. The mean age of the study

participants was  $45.23 \pm 18.08$  years. Fever was present in 39 (40.2%) of the participants. When compared with patients with no fever, the patients with fever had greater severity of disease ( $p < 0.001$ ), higher heart rate ( $p < 0.001$ ), decreased oxygen saturation ( $p < 0.001$ ). Among the laboratory investigations, the fever group had a greater tendency of having deranged alanine aminotransferase (ALT) ( $70.82 \pm 29.23$  vs.  $32.83 \pm 16.22$ ,  $p = 0.010$ ), Lymphocytes ( $1.56 \pm 0.54$  vs.  $2.12 \pm 0.94$ ,  $p = 0.003$ ) and serum total bilirubin ( $1.06 \pm 0.36$  vs.  $0.55 \pm 0.21$ ,  $p = 0.009$ ). Based on multiple regression analysis, the presence of fever is a predictor of derangement in ALT (OR=1.034, CI=1.001-1.068  $p = 0.025$ ) and total bilirubin (OR=4.38, CI=2.14-6.78,  $p = 0.021$ ).

**Conclusion :** Fever may not be present among all patients presenting with COVID-19 infection, but those who have a fever have a greater risk of having deranged liver function tests. Hence, it is important to monitor liver function tests (LFTs) in COVID-19 patients presenting with fever.

**Keywords:** covid-19, fever, alt (alanine aminotransferase), total serum bilirubin, real-time pcr.

### 93.Outcomes Of Dengue Fever In Pregnancy And Puerperium : A Case Series In Benazir Bhutto Hospital, Rawalpindi,

Dr.Tahira kalsoom

**Background:** Dengue infection is a mosquito-borne disease with various grade of severity. Pregnancy and puerperium are high-risk groups and are prone for complications of dengue hemorrhagic fever. **Objective:** To see the outcome of dengue fever in pregnancy and puerperium.

**Methodology:** A descriptive case series study was conducted in Obs/Gynae department of Benazir Bhutto tertiary care Hospital, Rawalpindi, including all cases of dengue fever in pregnancy at different gestational ages and puerperium from 15<sup>th</sup> August 2022 to 15<sup>th</sup> November 2022. Their medical records were reviewed for disease severity classification (Dengue, Dengue with warning signs, Severe Dengue) and outcome variables. Continuous variables were expressed in mean and range and categorical variables as number and percentage.

**Results:** During the study period 14 cases were reviewed. The mean maternal age was 28.6 years. Eight patients were in first and second trimester. All were treated successfully on supportive treatment. However; one patient had spontaneous miscarriage at 21 weeks of gestation. Four patients were at term, three delivered vaginally and one by caesarian section.

Other associated complications were: oligohydromnias(1) and postpartum hemorrhage(1). Two cases were seen in puerperium with severe dengue. One mother expired due to complications of dengue shock syndrome and second with intracranial hemorrhage managed successfully.

**Conclusion:** Dengue fever in pregnancy and puerperium has significant effects and consequences. A successful outcome requires early recognition, correct diagnosis and timely interventions with high index of clinical suspicion in any women with fever during epidemic.

**Key words:** Dengue, Severe dengue, Pregnancy, puerperium

#### **94. Prediction of Neonatal Birth Weight and Head Circumference by Adopting Maternal Parameters : Exploration of Automated Machine Learning & Incorporation of Ensemble Stacked Approach**

*Dr Rubaba Abid Naqvi*

**Background:** Neonatal birth weight (NBW) and neonatal head circumference (NHC) have been recognized as prognostic variables to assess the development risk of ailments and psychological faculties of the child in the near and distant future.

**Objective:** To demonstrate Artificial intelligence in general and machine learning in particular exhibits superior predictive and prognostic capabilities, when compared with conventional statistical techniques for which automated Machine Learning is used to predict NBW and NHC by adopting maternal parameters such as parity, history of miscarriages, gestational age and maternal haemoglobin.

**Methodology:** The study population comprised 100 mothers presenting to the BBH, Rawalpindi, Pakistan for The current state of the art (SOTA) for automated Machine Learning (aML)<sup>1</sup> was adopted to develop predictive models using algorithms including Neural Network, eXtreme Gradient Boosting and CatBoost with employment of hyperparameter tuning.

Ensemble approach, which is the amalgamation of two or more than two algorithmic models to develop such a model which is better than either of its component components, was superimposed. Logloss and macro-weighted average Area Under the Receiver Operating Curve (mWA-AUROC) assessed the predictive ability of the developed models.

**Results:** CatBoost algorithmic model predicted NBW by adopting maternal parameters with a minuscule logloss of only 0.007 and a perfect mWA-AUROC. **(Figure 1)**, precision, accuracy and recall at 100% each and a perfect F-1 score of 1. An ensemble of

Light Gradient Boosting Machine and eXtreme Gradient Boosting predicted NHC with a logloss of 0.31 and an mWA-AUROC of 0.99 (**Figure 2**), accuracy of 83%, precision of 86%, recall of 83% and an F-1 score of 0.83. Maternal hemoglobin level at term along with maternal weight and gap period is recognized as the most influential predictors for NHC. (**Figure 3**)

**Conclusions:** Our novel approach to developing predictive models for NBW and NHC using maternal parameters by exploring automated machine learning is the very first attempt of its nature. The adoption of current SOTA for aML provides optimal predictions which, when incorporated into the respective management protocols, shall translate into an optimized assistance in risk stratification and complication triaging.