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140

SCIENTIFIC PUBLICATIONS

*Abstracts from medical publications
facilitated by Getz Pharma*



THE VAULT™

PARTNERING FOR RESEARCH

THE VAULT is a collection of scientific and medical research conducted by Health Care Professionals (HCPs) across Pakistan, facilitated by Getz Pharma over the years.

The first issue of THE VAULT was dedicated to 100 publications assisted by Getz Pharma since 1995 which can be viewed by scanning the below QR code.



This (second Issue) of THE VAULT is dedicated to 40 publications assisted by Getz Pharma in the year 2022.

THE VAULT
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Since the inception of Getz Pharma in 1995, our motto has been to ‘Care for your Health’. In the last 28 years, we have become the nation’s largest pharmaceutical company and this is not only because we are committed to producing world-class medicines, but also because we have taken our responsibilities as a corporate leader seriously. We strove to establish our business while making conscious efforts and investments into reducing our carbon footprint. When we say world-class, we mean it- Getz Pharma’s manufacturing facility is pre-qualified and approved by WHO, as well as from member countries of the Pharmaceutical Inspection Co-operation Scheme (PIC/S). Over the years, we have facilitated the medical and healthcare community by giving grants and support when it comes to research and development. Unfortunately, only a small percentage of the country’s GDP goes towards the development and advancement of the public healthcare system in Pakistan. As such, we feel it our duty to assist and foster an environment of constant research, development and most importantly the sharing of knowledge, which can benefit the fraternity and the patients they serve.

Today we have proudly surpassed 140 publications conducted by Pakistani doctors and researchers, published around the world. By collaborating with healthcare workers across Pakistan, we have successfully laid the groundwork for a network that supports research and sharing of knowledge within this community.

I am proud of our Medical Affairs department for numerous scientific publications that Getz Pharma has facilitated since its inception. We stay committed to the task of assisting and facilitating further research and development in this field.

KHALID MAHMOOD

CEO & MD
Getz Pharma



Getz Pharma is an international research driven pharmaceutical company. In line with our principles of integrating highest quality research in process of formulation development, manufacturing, testing and marketing of a wide range of quality, affordable medicines, we are compelling the lead in scientific data generation and conversations all across Pakistan. The Medical Affairs department at Getz Pharma is committed to make the innovative science behind the glass visible, encouraging open interaction between researchers, clinicians and medical community.

Expanding collaborations in research services and publications will enable us to create the greatest and swiftest impact on patients suffering from various diseases. With this aim in mind, our department engages and facilitates healthcare professionals by offering services in research, statistical support and publications. We are proud to have offered support, with the conclusion of 40 publications in the year 2022. The booklet contains abstracts from guidelines, manuscripts, chapter in books and posters published in renowned international and national HEC recognized journals, in the year 2022.

We are currently engaged in numerous clinical research projects all across Pakistan in collaboration with healthcare professions and medical societies, across the country in pioneering a data driven approach to healthcare problems by setting up disease specific registries. This has not only enabled us to improve our epidemiological understanding of diseases with positive clinical implications but also highlighted our research from Pakistan on a number of international forums.

Our long-term mission is to foster indigenous scientific data generation, dissemination through publication, enhance knowledge of local informational gaps and fill native unmet medical informational needs. This all will translate into improve patient care and progress on important determinants of public health.

DR. JAHANZEB KAMAL

Director Medical Affairs
Getz Pharma



A human mind is a powerful tool equipped with the most creative ideas and unique concepts. Our mission is to identify all such ideas and gaps and transform them with the help of our distinct resources into knowledge and information and come up with ways to make the world a healthier place. Getz Pharma is significantly playing a major role in advancing research and aim to improve the lives of patients in its pursuit of a healthier society. In line with this goal in mind, we are trying to create an ecosystem of research involving and empowering healthcare professionals. Through our collaborative initiatives, we offer services including synopsis and manuscript review, data analysis, manuscript writing and research publication. Furthermore, our carefully constructed workshop modules called SIGMA (Scientific Initiatives by Getz Pharma for Medical Research Application), are designed to train healthcare professional on topics like Synopsis Writing, Research Methodology, SPSS Hands-on, Literature Search & End Note and Medical Paper Writing.

We are heading towards an atmosphere of original scientific data generation to augment knowledge of informational gaps and fulfill unmet needs in the areas of science and medicine. All this will help us transform the healthcare sector with knowledge and innovation to decipher as improved patient care and a healthy society.

ALI NASIR

Associate Manager
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2022 GUIDELINES

Helicobacter Pylori Management Guidelines from Pakistan

PUBLISHED IN

Journal of the Pakistan Medical Association. 2022

IMPACT FACTOR: 0.781

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ABSTRACT:

Helicobacter pylori (H. Pylori) is still a considerable health issue around the world as well as in Pakistan. The global prevalence of H. Pylori infection varies between 10% - 90%. It is one of the commonest infections leading to peptic ulcer disease and gastric cancer in Pakistan and worldwide. Patients often present with common chronic upper gastrointestinal symptoms and a delayed diagnosis can lead to gastric cancer in some cases. Clinicians' are still searching for the most effective, safe, and easy management, the resistance to therapy is a major challenge.

To overcome these challenges Pak GI and Liver Disease Society (PGLDS) & Medical Microbiology and Infectious Diseases Society of Pakistan (MMIDSP) in collaboration with Getz Pharma decided to devise a local guideline from Pakistan for physicians, giving a holistic overview of the current evidence of disease demographics, available testing methods, multiple therapeutic combinations i.e. (1st line regimens, salvage therapies, and 2nd line regimens) and recommendations for the management of Helicobacter Pylori in line with international standards.



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“Knowing is not enough, we must apply. Willing is not enough, we must do.”
Johann Wolfgang von Goethe

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by Getz Pharma
for Medical Research
Application

SIGMA

Getz
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The only company in Pakistan whose manufacturing facility is Pre-qualified and approved by WHO Geneva, as well as from a member country of the Pharmaceutical Inspection Co-operation Scheme (PIC/S).



2022 PUBLICATIONS

Anosmia and Ageusia in patients with COVID-19

PUBLISHED IN

Pakistan Armed Forces Medical Journal. 2021

JOURNAL CATEGORY: Y

AUTHORS

Tahir Ghulam Abbas, Atif Hafeez Siddiqui, Syed Hasan Abbas Zaidi, Danish-Ur-Rahim, Irfan Ahmed Shaikh, Arfat Bashir Soomro*, Muhammad Shuja Farrukh, Jahanzeb Kamal**

AUTHOR INSTITUTES

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**King's College London, London England.

OBJECTIVE:

To evaluate the prevalence and diagnostic significance of anosmia and ageusia among COVID-19 positive patients of Karachi, Pakistan.

STUDY DESIGN:

Cross-sectional study.

PLACE AND DURATION OF STUDY:

Dr Ruth K. M. Pfau Civil Hospital, (Dow University of Health Sciences), Karachi Pakistan, from Jan 2021 to Feb 2021.

METHODOLOGY:

The data were collected prospectively from 265 COVID-19 positive patients. Some patients were interviewed over the telephone, while for patient's ease, an online Google form was also formed, facilitating the online data collection. The patient's demographics, comorbidities, allergies, and COVID-19 associated characteristics were inquired. The statistical analysis was performed on SPSS version 23.

RESULTS:

The observed frequency of anosmia and ageusia in COVID-19 patients was 49.1% & 43.8% respectively. The median time to recovery was 8-8.5 days (median) for both symptoms. We found no significant difference for gender, BMI, marital status, residential area, comorbidities and reason for long-standing breathing difficulties between patients with or without both anosmia and ageusia ($p > 0.05$). Furthermore, most of the cigarette smokers reported none of the two symptoms (anosmia and ageusia), 24% and 25.2% of COVID-19 positive cases with smoking history were presented without anosmia and ageusia, respectively ($p < 0.05$).

CONCLUSION:

Loss of sense of smell and taste was reported in almost half of the studied population infected by the SARS-CoV-2 virus. Therefore, screening for anosmia and ageusia must be considered while COVID-19 suspicion as an important diagnostic clue.

KEYWORDS:

Anosmia, Ageusia, COVID-19, Smell, Taste.



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Insulin Resistance in young obese females with and without Polycystic Ovary Syndrome

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International Journal of Endorsing Health Science Research. 2022

JOURNAL CATEGORY: Y

AUTHORS

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BACKGROUND:

The present study intends to determine the comparative insulin resistance (IR) among young obese females with and without polycystic ovary syndrome (PCOs) using the Homeostatic Model Assessment of Insulin Resistance (HOMA-IR).

METHODOLOGY:

During this comparative cross-sectional study, a total of 300 young obese females were evaluated for the presence of PCOS and insulin resistance. Based on the PCOs diagnosis, 250 obese PCOs females were included in group 1, and group 2 comprised 50 obese non-PCOs females. With the demographic details, patients' diabetic and lipid profiles were also evaluated, and the difference in the inference between the groups was drawn using SPSS version 22.0.

RESULTS:

It is to note that more than 90% of the young obese PCOs females were diagnosed with type 2 diabetes mellitus (T2DM) while none of the obese non-PCOs females had diabetes. Furthermore, the HOMA-IR score was significantly high among young obese females diagnosed with PCOs (16.30 ± 1.62) as compared to those without PCOs (3.47 ± 0.37) ($p < 0.01$).

CONCLUSION:

It is concluded from the study results that young obese females with PCOS are more prone to develop insulin resistance than those without PCOs.

KEYWORDS:

Obesity, Polycystic Ovary Syndrome, Insulin Resistance, HOMA-IR



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Oxidative stress level among females with Type 2 Diabetes Mellitus with & without Polycystic Ovarian Syndrome

PUBLISHED IN

International Journal of Endorsing Health Science Research. 2022

JOURNAL CATEGORY: Y

AUTHORS

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BACKGROUND:

The present study aimed to evaluate the level of oxidative stress by measuring the plasma concentration of oxidants in Type 2 Diabetes Mellitus (T2DM) patients with and without Polycystic Ovarian Syndrome (PCOs).

METHODOLOGY:

A total of 500 diabetic patients between 25 to 45 years of age were divided into two groups; group 1 included 250 T2DM patients with PCOs, and 250 T2DM patients without PCOs were included in group 2. In addition to the demographic and clinical parameters, antioxidants include Superoxide Dismutase (SOD), Malondialdehyde (MDA), Catalase (CAT), Total antioxidant capacity analyte (TAC), and Glutathione Peroxidase (GSH) was also measured.

RESULTS:

No significant difference in the level of antioxidants; SOD and MDA was observed between the diabetic females with and without PCOs ($p > 0.05$). However, Glutathione Peroxidase (GSH-Px) was significantly low in T2DM patients with PCOs as compared to those without PCOs ($p < 0.05$). Surprisingly, the mean catalase levels were significantly high among T2DM females with PCOs (3.6 ± 0.5 U/g of Hb) than those without PCOs (3.4 ± 0.7 U/g of Hb; $p < 0.001$).

CONCLUSION:

It is suggested that both T2DM and PCOs are linked to a high level of oxidative stress status, but the high catalase level among diabetic PCOs females is alarming and needs to be further studied. Thus, these changes accentuate the need for lifestyle modifications.

KEYWORDS:

Type 2 Diabetes Mellitus, Oxidative Stress, Polycystic Ovarian Syndrome, Antioxidants.



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The physical activity patterns among pregnant women at a tertiary care hospital in, Pakistan

PUBLISHED IN

Pakistan Journal of Medical Sciences. 2022

IMPACT FACTOR: 2.26

JOURNAL CATEGORY: X

AUTHORS

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AUTHOR INSTITUTE DETAILS

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OBJECTIVES:

To determine the physical activity patterns among pregnant women at a tertiary care hospital in, Pakistan.

METHODS:

A cross sectional study was conducted through questionnaire for a span of eight months (from 17th July, 2020 till 20th March, 2021) amongst pregnant women visiting Abbasi Shaheed Hospital for antenatal visit including paramedical staff having 24 to 28 weeks of gestation. With the written consent of participants, the physical activity was assessed by a validated self-reported Pregnancy Physical Activity Questionnaire (PPAQ) having 32 questions to determine the duration; frequency, intensity and type of physical activity during pregnancy. Participants were asked to select the physical activity and time spent on it per day during the current gestational period. From the PPAQ, average weekly energy expenditure in Metabolic Equivalent of Task (MET-h-week) was calculated. Demographic data including age, ethnicity, socioeconomic status, parity, literacy and working status were recorded.

RESULTS:

A Total of 229 participants of different ethnicities were enrolled. House hold and care giving type of activities of moderate to light intensity were commonly practiced by our pregnant women. Whereas multi gravida were involved in light physical activities. The Punjabi and Baluchi women mostly took occupational type of physical activities. Working women were physically more active than household women. Around 186 (80%) of the participants had no idea that they should take antenatal exercises during pregnancy.

CONCLUSION:

The study concluded that house hold and care giving type activities with moderate to light intensity were commonly carried by pregnant women. Majority of them had no knowledge of antenatal exercise.

KEYWORDS:

Physical activity patterns, Pregnancy, Tertiary care Hospital.



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To Assess the Frequency of Face Mask Practices and Attitudes during the Coronavirus Disease (COVID-19) Pandemic—An Online Survey

PUBLISHED IN

Journal of Research in Medical and Dental Science. 2022

JOURNAL CATEGORY: Y

AUTHORS

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AUTHOR INSTITUTE DETAILS

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OBJECTIVE:

COVID-19 is a viral infection that primarily spreads via respiratory droplets. No definitive treatment is accessible at the moment. As the therapy of the infection is still a matter of debate and under consideration. Hence, prevention by means of appropriately use of face mask is the key measure to restrict the spread of infection. Therefore, this survey was designed to assess the practices and attitudes towards the use of face mask to avoid the spread of infection.

METHODOLOGY:

This was an observational study conducted using a semi-structured questionnaire during the COVID-19 pandemic from June 2020 to December 2020. The questionnaire consisted of two parts: (1) Four questions related to basic demographic characteristics (gender, education, marital status, and occupation), and (2) Seven questions related to knowledge, attitude, and practices regarding the use of face mask to restrict the spread of COVID-19 infection. The information gained from the participants was entered and analyzed using Statistical Package for the Social Sciences (SPSS) version 16. Frequencies, Percentages, and Means of relevant variables were calculated.

RESULTS:

A total of 591 participants were registered with a mean age of 31.144 ± 9.02 years, out of which 344 (58.2%) were males and 247 (41.8%) were females. Most participants 467(79.0%) agreed to wearing a face mask out of home, 492(83.2%) used surgical masks followed by 58(9.8%) used N-95 mask. Most participants 270(45.7%) changed their mask daily. 291(49.2%) participants assured that mask will protect from getting infection while 256(43.3%) participants supposed that mask might be protected from getting infection.

CONCLUSION:

This study concludes that knowledge, attitude, and practices regarding the use of face masks were found to be satisfactory. Most of the participants believed that use of face mask prevents the spread of Covid -19 pandemic.

KEYWORDS:

Facemask, Covid -19 pandemic, Prevention, practices, Attitudes



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Time for culture conversion and its associated factors in multidrug-resistant tuberculosis patients at a tertiary level hospital in Peshawar, Pakistan

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Pakistan Journal of Medical Sciences. 2022

IMPACT FACTOR: 2.26

JOURNAL CATEGORY: X

AUTHORS

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OBJECTIVE:

This study aimed to assess the time to sputum culture conversion (SCC) and its determinants among multidrug-resistant tuberculosis (MDR-TB) patients.

METHODS:

This cross-sectional study was conducted from January 2019 to January 2020. A total of 252 MDR-TB patients presenting at a tertiary level teaching hospital in Peshawar, Khyber Pakhtunkhwa (KP), were included. The patient's demographic and clinical data were collected using a structured questionnaire. Time to SCC was calculated from the initiation of treatment till the patient had two consecutive negative cultures. The Cox proportional-hazards analysis was performed to check strength and association between the determinants and time for SCC.

RESULTS:

Out of 252 MDR-TB patients enrolled, sputum culture conversion was observed in 76.6% of the patients by the end of six months. While, 19.0% of the patients failed to achieve negative culture and remained positive after interim report of their treatment. Age > 45 years (HR = 15.22; 95% CI: 7.27- 31.83; p< 0.001), weight loss (0.03; 0.01-0.06; p<0.001), smoking (0.10; 0.05-0.21; p<0.001), diabetes mellitus (0.02; 0.00-0.04 p<0.001) and disease severity on chest X-ray (CXR) (0.03; 0.01-0.09; p<0.001) were the significant determinants of delayed sputum culture conversion.

CONCLUSION:

MDR-TB patients with older age, low BMI, weight loss, diabetes, smokers and those with disease severity on CXR are less likely to respond to treatment as they displayed delayed SCC. Therefore, such patients should be meticulously followed up for successful management.

KEYWORDS:

Tuberculosis; MDR-TB; Time to sputum culture conversion



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Tracheobronchial aspiration affects the outcome of hospitalization among Hepatic Encephalopathy patients

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Pakistan Journal of Medical Sciences. 2022

IMPACT FACTOR: 2.26

JOURNAL CATEGORY: X

AUTHORS

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OBJECTIVE:

The present study aimed to determine the effect of tracheobronchial aspiration on hospitalization outcomes and the factors influencing its occurrence.

METHODS:

This prospective descriptive study was conducted from January 2017 to December 2020 at GMC/DHQ-Teaching Hospital in Gujranwala, Pakistan. All consenting liver cirrhosis patients with hepatic encephalopathy > 12 years of age admitted at the study site were included. The patient's baseline characteristics and the hospitalization outcomes were noted in terms of death and discharge. The collected data was analyzed using SPSS version 22.0. The predictors of tracheobronchial aspiration were determined using Independent Sample T test and Chi-square test for quantitative and qualitative variables respectively. The p-values were taken statistically significant if < 0.05. A binary logistic regression analysis was performed to ascertain the effect of significant factors on the likelihood of tracheobronchial aspiration.

RESULTS:

Among the total of 294 patients, 28.0% died during hospitalization. Death occurred significantly more in group of patients who had tracheobronchial aspiration (62.7% vs 12.0%, p<0.01). Increasing age was associated with increased chance of tracheobronchial aspiration (p<0.01). Male gender (49.6% vs 8.2%, p<0.01), patients whose hepatic encephalopathy was precipitated by upper GI bleed (59.7% vs 22.9%, p<0.01), and patients with comorbidities (p=0.02) were significantly prone to tracheobronchial aspiration.

CONCLUSIONS:

Tracheobronchial aspiration is a significant predictor of inpatient mortality among patients with hepatic encephalopathy. Male gender, increasing age & upper GI bleed predict aspiration in hepatic encephalopathy patients.

KEYWORDS:

Liver Cirrhosis, Complications, Hepatic Encephalopathy, Tracheobronchial Aspiration, Tertiary Care Hospital.



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Efficacy of rituximab in patients with rheumatoid arthritis

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Journal of the Pakistan Medical Association. 2022

IMPACT FACTOR: 0.781

JOURNAL CATEGORY: X

AUTHORS

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OBJECTIVE:

To determine the efficacy of rituximab 2x500mg in rheumatoid arthritis patients.

METHODS:

The descriptive case series was conducted at the Department of General Medicine, Lady Reading Hospital, Peshawar, Pakistan, from November 25, 2018, to May 24, 2019, and comprised patients of either gender aged 30-60 years with rheumatoid arthritis diagnosis for >6 months. The patients received 2 doses of rituximab 2x500mg through intravenous infusion with pre-medications as a standard protocol. A follow-up visit was recommended for each patient after 24 weeks. The efficacy of the treatment in terms of disease progression and improvement were observed using the Disease Activity Score-28 scale at the baseline and on follow-up. Data was analysed using SPSS 20.

RESULTS:

Of the 97 patients, 83(85.6%) were female and 14(14.4%) were male. The overall mean age was 50.68±14.27 years. The baseline score was 6.68±1.14 while the follow-up score was 4.62±0.93 (p<0.05). In terms of efficacy, 25(25.8%) patients showed no improvement, while 72(74.2%) had improvement.

CONCLUSIONS:

Rituximab 2x500mg/l was found to be an effective treatment option for rheumatoid arthritis patients.

KEYWORDS:

Rituximab, Disease-modifying antirheumatic drug, DMARD, Rheumatoid arthritis, Efficacy, DAS-28 score.



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Knowledge and perception of doctors regarding antibiotic stewardship in a tertiary care hospital of Southern Punjab

PUBLISHED IN

International Journal of Endorsing Health Science Research. 2022

JOURNAL CATEGORY: Y

AUTHORS

Moazzam Ali Atif & Sana Tufail

AUTHOR INSTITUTE DETAILS

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BACKGROUND:

Pakistan has been working on Antimicrobial Resistance (AMR) for a decade; unfortunately, there is a lack of concept of antibiotic stewardship in most health setups, especially in the public sector. This study aims to analyze the knowledge and perception of junior physicians towards antibiotic stewardship programs. The need for this knowledge and impact of antimicrobial resistance on antibiotic stewardship ascertain barriers to stewardship acceptance.

METHODOLOGY:

A cross-sectional study was conducted at different clinical departments of Sheikh Zayed Hospital, Rahim Yar Khan, including 50 junior physicians recruited via convenience sampling technique. The data was collected using a structured questionnaire comprising physician's hospital associated data and questions regarding the knowledge, perspectives, and practices concerning antibiotic stewardship programs (ASP) to reduce AMR. Statistical analysis was done using SPSS version 22.0, and data were presented using frequencies and percentages.

RESULTS:

Most of the enrolled physicians knew AMR and agreed that it is a serious global health issue. However, all the medical officers were completely unaware of the antibiotic stewardship program, while 42.9% of house officers and only 25.7% of PGs knew about the program.

CONCLUSION:

Our study shows support from doctors for expanded stewardship implementation and provides an important understanding of the current attitudes of doctors regarding stewardship execution. A better understanding of perceptions and attitudes is dire for healthcare stakeholders to expand stewardship activities into healthcare settings.

KEYWORDS:

Antibiotic Stewardship Programs, Antimicrobial Resistance, Junior Physicians, Knowledge, Perception.



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Evaluating the frequency of successful guidewire crossing through a complex lesion in coronary artery disease patients having chronic total occlusion

PUBLISHED IN

Pakistan Journal of Medical Sciences. 2022

IMPACT FACTOR: 2.26

JOURNAL CATEGORY: X

AUTHORS

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OBJECTIVE:

To determine the frequency of successful guidewire crossing through chronic total occlusion (CTO) in patients having a J-CTO Score = 2 (difficult lesion).

METHODS:

A prospective, cross-sectional study was conducted at the Armed Forces Institute of Cardiology (AFIC) in Rawalpindi. Patients with high calcium score on CT-angiogram were sent for elective coronary angiogram out of which patients diagnosed with chronic total occlusion (CTO) were selected and J-CTO Score was assessed. Those with a J-CTO score = 2 (difficult lesion) were enrolled for percutaneous coronary intervention (PCI). Guidewire that can cross the lesion within 30 minutes was considered successful.

RESULTS:

A total of 158(95.8%) cases had successful guidewire crossing, while in 7(4.2%) patients, the procedure was unsuccessful. No significant association between the success rate of guidewire crossing and age ($p = 0.21$). Furthermore, there was no statistically significant relationship between guidewire crossing and LV function ($p = 0.559$) i.e. 32.2% and 42.9% of those with LV function between 25-35% had successful and unsuccessful guidewire crossing, respectively. While 67.7% and 57.1% patients having 36-65% LV function were observed having successful and failed PCI, respectively.

CONCLUSIONS:

The success rate of guidewire crossing through CTO in patients having a J-CTO Score =2 (difficult lesion) is acceptable so J-CTO score can be considered for difficulty grading of the lesion before intervention to prevent complications and success rate of PCI.

KEYWORDS:

Angioplasty, Chronic Total Occlusion, Coronary Artery Disease, Percutaneous Coronary Intervention, Stents and J-CTO score.



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Improvement in Harris Hip Score (HHS) After Non-Cemented Total Hip Replacement; A Case Series of 60 Patients with Arthritis of the Hip Joint

PUBLISHED IN

Indian Journal of Natural Sciences. 2022

AUTHORS

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AUTHOR INSTITUTE DETAILS

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ABSTRACT:

To determine the mean Harris Hip Score (HHS) improvement after a non-cemented total hip replacement (THR) in younger patients with arthritis of the hip joint. A case series of 60 patients (20-50 years of age) with arthritis of the hip joint was conducted at the Department of Orthopaedic Surgery Nishter Hospital, Multan. In all patients, total hip replacement was done by a consultant orthopedic surgeon. Postoperatively patients were evaluated for the outcome, i.e. Harris hip score at one month after surgery. The results showed that with the mean age of 36.60 ± 7.53 years, most females (53.33%) were between 36 to 50 years of age. Out of total 33.33% were male, and 66.67% were females with a male to female ratio of 1:2. The mean HHS was 48.32 ± 6.58 and 67.72 ± 6.12 at baseline and one month after surgery, respectively ($p < 0.01$). This study concluded that the mean change of HHS after non-cemented total hip replacement in comparative younger patients with hip joint arthritis is quite significant.

KEYWORDS:

Arthritis of the Hip Joint, Total Hip Replacement, Harris Hip Score.



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Prevalence of dyslipidemias in human immunodeficiency virus-infected patients with and without antiretroviral therapy

PUBLISHED IN

International Journal of Endorsing Health Science Research. 2022

JOURNAL CATEGORY: Y

AUTHORS

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BACKGROUND:

Disturbances in the lipid profile and dyslipidemia are prevalent among human immunodeficiency virus (HIV) patients. Furthermore, long-term use of antiretroviral therapy (ART) exacerbates the condition. Data on lipid profile abnormalities among patients receiving highly active antiretroviral treatment in Pakistan are very limited. The present study aims to assess the frequency of dyslipidemia and lipid concentrations among HIV-infected patients receiving active art in comparison to those not receiving any treatment.

METHODOLOGY:

A cross-sectional study was carried out at the HIV clinic of Pakistan Institute of Medical Sciences, Islamabad, from January to July 2018. A total of 100 HIV-infected patients aged 13 to 60 years who gave consent and fulfilled the inclusion criteria were enrolled in the study via non-probability consecutive sampling. All patients who had positive HIV antibodies via the Elisa process were considered positive. Samples were examined for fasting lipids by using standard laboratory procedures.

RESULTS:

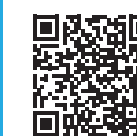
The patients' mean age was 32.7 ± 13.4 ranging between 13-60 years. The total patient population consisted of 71% males and 29% females with a mean BMI of 21.1 ± 3.4 kg/m². Out of 100, 38% of the study patients had dyslipidemia. The observed prevalence rate of hypertriglyceridemia, hypercholesterolemia, low HDL-C, and high LDL-C were 21%, 30%, 20%, and 16%, respectively. None of the factors were found in significant association with abnormal lipid parameters except the older patients (41-60 years) were at higher risk of hypercholesterolemia [α OR 0.15 (95% CI 0.02-0.92); $p=0.04$] than the counterpart.

CONCLUSION:

The study has demonstrated that a higher percentage of HIV-infected patients have concomitant dyslipidemia with or without art treatment.

KEYWORDS:

Human Immunodeficiency Virus, Dyslipidemia, Antiretroviral Therapy, Cholesterol.



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Assessment of Efficacy of Nimesulide in the Treatment of COVID-19 Infection

PUBLISHED IN

Journal of Pharmaceutical Research International. 2022

JOURNAL CATEGORY: Y

AUTHORS

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AUTHOR INSTITUTE DETAILS

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OBJECTIVE:

There are different anti-inflammatory drugs that are being used in patients with moderate to severe COVID-19 infection. However, in mild to moderate COVID-19 infection, Nimesulide treatment might impede the inflammation with a superior safety profile. Therefore, this study is intended to assess the anti-inflammatory, analgesic and antipyretic activity of Nimesulide in mild to moderate Covid-19 infection.

METHODOLOGY:

This was an uncontrolled longitudinal study conducted at Pakistan Institute of Medical Sciences Islamabad. The duration of the study was about six months. A total of 66 patients were enrolled. All the patients received Nimesulide 100 mg along with 10 ml sucralfate suspension two times a day for five days. Patients with elevated C-reactive protein or further comorbidities were prescribed 250 mg azithromycin two times a day for five days. Patients with elevated D-dimer (above 500) or other comorbidities were prescribed enoxaparin in a dose of 60 mg subcutaneously once daily for five days. The Primary outcome was estimated in terms of a percent change in oxygen saturation, hospitalization, or death.

RESULTS:

The results showed that 31(47.0%) were females and 35(53.0%) were males. The mean oxygen saturation on presentation was 93%±7.9. 24(36.36%) of the patients had D-dimer levels < 250 ng/ml, while 30(45.45%) of the patients had D-dimer levels >250 ng/ml with significant difference between them (p=0.025). 16(24.24%) patients received enoxaparin while 49(74.24%) patients did not received enoxaparin and found a significant difference between the mean change in oxygen saturation of them (p<0.001). 47(71.2%) patients received azithromycin while 19(28.8%) patients did not received azithromycin and found a significant difference between the mean change in oxygen saturation of them (p=0.03).

CONCLUSION:

This study concluded that Nimesulide treatment resulted in a rapid temperature fall within five days. Furthermore, oxygen saturation was also significantly improved in patients treated with Nimesulide.

KEYWORDS:

Nimesulide; mild to moderate COVID-19 infection; azithromycin; enoxaparin.



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Frequency of success and complications of primary endoscopic third ventriculostomy in infants with obstructive hydrocephalous

PUBLISHED IN

Pakistan Journal of Medical Sciences.2022

IMPACT FACTOR: 2.26

JOURNAL CATEGORY: X

AUTHORS

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AUTHOR INSTITUTE DETAILS

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OBJECTIVES:

To determine the success rate and complications of primary endoscopic third ventriculostomy (ETV) in infants with obstructive hydrocephalous.

METHODS:

This case series was conducted at the Department of Neurosurgery, Medical and Teaching Institute, Lady Reading Hospital Peshawar from July 2016 to June 2018. All consecutive patients with age less than one year who underwent ETV for primary obstructive hydrocephalous, of both gender, were included in the study. The patients were followed up to six months after surgery. The data was entered in a specially designed Performa. Patients' data was analyzed using SPSS version 21.0.

RESULTS:

We had total 21 patients with age less than one year during the study period. Male patients were 11 (52.4%). Success rate of ETV at six months of follow up was 12 (57.1%). Post-op complications observed were in 9.52% (2/21) cases. One patient had cerebrospinal fluid (CSF) leak and the other had significant bleed.

CONCLUSION:

ETV is successful in 57.1% of infants with obstructive type of hydrocephalous. The post op complications in case of ETV are lower than Ventriculo-peritoneal shunts. Therefore, ETV can be offered to infants having obstructive hydrocephalous.

KEYWORDS:

Congenital Hydrocephalus, Endoscopic Third Ventri-culostomy, Infants, Obstructive Hydrocephalus, Ventriculo-Peritoneal Shunt



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Pattern of Orthopedic Trauma Injuries in Patients Attending Khalifa Gul Nawaz Teaching Hospital: A Retrospective Analysis

PUBLISHED IN

Annals of Abbasi Shaheed and Karachi Medical & Dental College. 2022

JOURNAL CATEGORY: Y

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OBJECTIVE:

The present study aims to assess the pattern of orthopedic trauma injuries in patients admitted to the Orthopedic Department at Khalifa Gul Nawaz Teaching Hospital in Bannu.

METHODS:

This retrospective cross-sectional study was conducted at the Orthopedic & Traumatology Department of K.G.N. Hospital, KPK, from January 2016 to December 2016. Data were extracted from hospital records of 380 patients admitted for emergency orthopedic surgery due to fractures, lacerations, or both. While the patients with severe head injuries, requiring emergency neurosurgery, immediate abdominal surgery, presenting with a history of bone fractures prior to the present trauma, shifted to the intensive care unit (ICU), or expired in the emergency, were kept under exclusion criteria. The etiologies and frequencies of various orthopedic injuries as per the diagnoses were recorded using a structured questionnaire designed for the study purpose. The ethical review board of Bannu Medical College approved the study protocol. The collected data were statistically analyzed using Statistical Package for Social Sciences (SPSS) version 18.0. Qualitative data was presented using frequency and percentages while quantitative as mean and standard deviation.

RESULTS:

Out of the 380 cases admitted during the study, most were males (76.0%). Furthermore, these orthopedic trauma injuries were more common in individuals aged 21 to 50 years (66.8%) than in the other age groups. Road Traffic Accidents (RTAs) were the major etiological factor (49.2%), followed by falls from height (31.8%). Upper limb fractures were diagnosed in 46.2% of patients, and 53.6% had lower limb fractures. Isolated radius (14.4%) and femoral fractures (23.9%) were the most frequent diagnosis.

CONCLUSION:

The present study provides a brief overview of the major etiologies and diagnoses for orthopedic emergencies. It is essential to identify the risk factors and strategize a prevention plan that should be the priority of the healthcare system to avoid morbidities and mortalities associated with orthopedic traumas.

KEYWORDS:

Traffic accidents, Accidental fall, Morbidity, Emergencies, Traumatology



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Clinical Features, Laboratory Variants, and Outcome of Patients Admitted with COVID-19 Infection; A Single-Center Experience

PUBLISHED IN

Annals of Abbasi Shaheed and Karachi Medical & Dental College. 2022

JOURNAL CATEGORY: Y

AUTHORS

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OBJECTIVE:

To determine the clinical features, laboratory variants, and outcome of patients with Corona virus Disease-2019 (COVID-19) infection.

METHODS:

A descriptive, single-center case series was conducted between October to December 2020. It included patients diagnosed with COVID-19 infection via Polymerase Chain Reaction (PCR). Patients were recruited through non-probability convenience-based sampling. After history and detailed examination of the patients, their demographic and clinical characteristics, including complete blood count (CBC), renal & electrolytes profile, inflammatory markers like C-reactive protein (CRP), lactate dehydrogenase (LDH), ferritin, and D-dimers were recorded using a structured questionnaire. Patients were managed according to the severity of the disease and disease progression was monitored regularly. Treatment offered to these patients was based on their presentation and severity of the disease.

RESULTS:

Out of 1092 patients, 77% were males. Most of them were diabetic (71.0%) and aged between 51-70 years (58.97%). Furthermore, 1051 of the total enrolled cases were symptomatic and had shortness of breath (94.32%), dry cough (91.20%), anorexia (91.20%), fatigue (90.65%), and etc. Among the laboratory parameters, raised C-reactive protein (CRP) was found in 96.24% of patients while leukocyte count, Alkaline phosphatase (ALP), D-dimers, ferritin and lactate dehydrogenase (LDH) levels were elevated in 89.37%, 71.61%, 68.77%, 56.86%, and 44.04% respectively. Hyponatremia was also observed in 53.75% patients. Most patients (32.60%) had oxygen saturation between 80 to 89%, while it was 80% among 20.42% patients. Moreover, 31.05% patients were categorized as having mild disease, 23.68% had moderate severity, and 24.84% had severe disease on the basis of clinical criteria. About 20.42% were critical and had respiratory failure. The recovery rate was high (96.0%), and the mortality rate was only 4.0%.

CONCLUSION:

We observed dynamic changes in the clinical and laboratory features of the COVID-19 patients admitted at District Health Quarter in Charsada, highlighting the significance of each of these parameters for individual patient's recovery and survival.

KEYWORDS:

COVID-19, Disease Progression, Oxygen Saturation, SARS-CoV-2



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Cushing syndrome due to ectopic ACTH secreting pheochromocytoma

PUBLISHED IN

British Medical Journal Case Reports. 2022

IMPACT FACTOR: 2.104

JOURNAL CATEGORY: Y

AUTHORS

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ABSTRACT:

In this case report, we present a case of a woman in her late 30s who presented with bilateral motor weakness, headache, hyperglycaemia and hypertension. Investigations revealed very high 24-hour urine cortisol of 90 524, ectopic adrenocorticotrophic hormone secreting pheochromocytoma, normal metanephrine levels and empty sella, which has never been reported. CT chest and abdomen revealed enlarged left adrenal gland with large necrotic mass 4.7×4.0 cm most likely neoplastic lesion. The patient was cured after surgical removal of the left adrenal mass. Histological examination revealed 3.5×2.5×2 cm mass consistent with pheochromocytoma. After surgery and a short stay in the intensive care unit, the patient started improving and both antihypertensive treatment and insulin injections were withdrawn.

KEYWORDS:

Adrenal disorders; Medical management.



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Frequency of Newly Diagnosed Diabetes in Hemorrhagic Stroke Patients Presenting to a Tertiary Care Hospital in Peshawar

PUBLISHED IN

Pakistan Journal of Public Health. 2022

JOURNAL CATEGORY: Y

AUTHORS

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BACKGROUND:

The present study aimed to determine the frequency of newly diagnosed diabetes in Hemorrhagic stroke patients presenting to a tertiary care hospital in Peshawar.

METHODS:

This cross-sectional study was conducted at the Department of Medicine, Lady Reading Hospital, Peshawar, for six months from December 2019 to June 2020. The ethical approval was obtained from Lady Reading Hospital ethical review committee. The sample size of 210 was calculated using the WHO sample size calculator. All hemorrhagic stroke patients between 31 to 80 years of age, having a hyperdense (white area) on CT brain for the first time, were included in the study. While those having an ischemic stroke and other causes of sudden-onset neurologic symptoms mimicking strokes were excluded from the study. Patient history was obtained following detailed clinical examination and necessary tests such as CT brain, HbA1c. The data were recorded using a structured questionnaire and analyzed using SPSS version 22.0. A Chi-square test was applied to assess the effect of various risk factors on the frequency of newly diagnosed diabetes mellitus.

RESULTS:

Out of the total, there were 66.70% males and 33.30% females, with a mean age of 55.90 ± 9.28 years. 53.3% were hypertensive, and only 27.60% had active smoking status. We found 63 (30.0%) new cases of diabetes mellitus. The most common risk factors among the enrolled newly diagnosed diabetic subjects were family history of diabetes, hypertension, and BMI (P<0.05).

CONCLUSION:

It is concluded that newly diagnosed diabetes mellitus is fairly common in hemorrhagic stroke patients.

KEYWORDS:

Diabetes Mellitus, hemorrhagic stroke, risk factors



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Frequency of resistance to first-line antiretroviral therapy observed among HIV patients

PUBLISHED IN

Pakistan Journal of Medical Sciences.2022

IMPACT FACTOR: 2.26

JOURNAL CATEGORY: X

AUTHORS

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⁴Mian Fareezuddin, MCPS, Federal Public Service Commission, Pakistan.

OBJECTIVES:

This study aimed to assess the frequency of first-line antiretroviral therapy (ART) resistance among HIV patients and to identify the factors affecting the drug resistance.

METHODS:

A cross-sectional study was conducted over a sample of 162 HIV-positive patients attending the Medicine Department of Lady Reading Hospital, Peshawar-Pakistan, from July 2020 to January 2021. Blood samples were collected for phylogenetic profiles to determine first-line antiretroviral therapy resistance.

RESULTS:

The frequency of ART resistance was detected in 64.8% of the enrolled HIV patients. Factors such as patient age, gender, comorbidities, and smoking status had no significant impact on drug resistance. While only body mass index (BMI) significantly affected ART resistance among HIV patients. The drug resistance mutations M184V and K103N were detected in the nucleoside reverse transcriptase inhibitors (NRTIs) and non-nucleoside reverse transcriptase inhibitors (NNRTIs), respectively, whereas the mutations G73SC and I47VA were detected in the protease inhibitors (PIs).

CONCLUSION:

There is a high frequency of resistance to first-line antiretroviral therapy among HIV patients presenting to the selected healthcare facility in Peshawar. Furthermore, we found no significant factors impacting ART resistance among HIV patients other than BMI.

KEYWORDS:

HIV Infection, Antiretroviral Failure, Resistance, Risk Factors.



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Assessing donor site pain after Iliac Crest Bone Graft

PUBLISHED IN

Annals of Abbasi Shaheed and Karachi Medical & Dental College. 2022

JOURNAL CATEGORY: Y

AUTHORS

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OBJECTIVE:

To evaluate the frequency and intensity of donor site pain after autogenous iliac crest bone graft harvest for arthrodesis of joints and non-union of fractures.

METHODS:

This prospective cross-sectional study was conducted in Orthopaedics Department from July to August 2021. After obtaining written informed consent, 156 patients who underwent iliac crest bone graft harvest were included in the study. The frequency and intensity of donor site pain were assessed using the Visual Analogue Scale (VAS) after one month postoperatively. Ethical approval was obtained prior to the conduction of study. A pre-structured questionnaire was used for data collection. Patients' data, including demographic details and pain-associated characteristics, were recorded and statistically analyzed using Statistical Package for the Social Sciences (SPSS) version 16.0.

RESULTS:

Out of 156 patients, most of them were males (61.5%). The mean age and pain score observed in the enrolled patients was 34.7 ± 9.5 years and 2.24 ± 2.01, respectively. 23% of the patients reported no pain after autogenous iliac crest bone graft harvest, 50.6% had mild pain, 20.5% reported moderate pain, and 5.7% had severe pain. The pain intensity was assessed in relation to gender and age; there was no significant difference in the mean VAS scores between males and females (p=0.45), where females had relatively higher VAS pain scores than males. Furthermore, stratification with respect to age showed no significant variation in the pain scores among different age groups (p=0.99). However, patients aged 26-35 years had the highest mean VAS pain scores (2.27 ± 1.80), in comparison to any other age group.

CONCLUSION:

The donor site pain remains significant morbidity associated with iliac crest bone graft; only 23% were pain-free after one month of the surgery. Furthermore, no significant effect of age and gender have been observed on the pain intensity.

KEYWORDS:

Arthrodesis, bone graft, donor site pain, visual analogue scale, iliac crest.



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Outcome of Initial 3 Years of Cranial Endoscopy at DG Khan Medical College and Teaching Hospital, Dera Ghazi Khan

PUBLISHED IN
World Neurosurgery. 2022

IMPACT FACTOR: 0.7

JOURNAL CATEGORY: W

AUTHORS

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OBJECTIVE:

With the evolution of surgical approaches, endoscopic skull base surgery has emerged as a suitable alternative to many other invasive methods. The aim of this study was to investigate the efficacy and outcome of cranial endoscopy in treating various neurosurgical intracranial pathologies in terms of procedural success and complications.

METHODS:

This observational, prospective case series was conducted at the Department of Neurosurgery of DG Khan Medical College from November 2017 to October 2020. The study enrolled 74 patients with indications for cranial neuroendoscopy. Clinical examination was performed, and a detailed history of the disease was obtained. Follow-up was conducted in the outpatient department. The collected data were analyzed using statistical analysis software.

RESULTS:

Of 77 procedures performed, endoscopic third ventriculostomy, arachnoid cyst fenestration, septostomy, colloid cyst excision, endoscopic assisted ventricular catheter placement, and intraventricular tumor biopsy were performed in 53.3%, 18.2%, 10.4%, 7.8%, 6.5%, and 3.9% of patients. Aqueductal stenosis was identified as the most common cause of obstructive hydrocephalus. Seizures and cerebrospinal fluid leaks were the most commonly reported complications (12% and 8.1%, respectively). The observed mortality rate was 2.7%.

CONCLUSIONS:

Neuroendoscopic surgery has become safe and effective, as surgeon experience and learning have lowered the risk of complications, and offers a low-cost alternative intervention.

KEYWORDS:

Hydrocephalus, Neuroendoscopy; Outcome.



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Safety and efficacy of Empagliflozin in Pakistani Muslim patients with type 2 diabetes (SAFE-PAK); a randomized clinical trial

PUBLISHED IN
BMC Endocrine Disorders. 2022

IMPACT FACTOR: 3.263

JOURNAL CATEGORY: X

AUTHORS

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BACKGROUND:

Sodium-Glucose-Co-Transporter 2 (SGLT2) inhibitor (Empagliflozin) is an effective drug in controlling blood glucose through predominantly glycosuria. Glycosuria increases the risk of genitourinary infections in diabetes. This study was aimed to establish the safety and efficacy of Empagliflozin (Group-A) versus standard care (Group-B) in Pakistani Muslim individuals with type 2 diabetes.

METHODS:

A multicenter, randomized clinical trial was conducted in five cities across Pakistan from July 2019 to August 2020. Patients of both genders aged 18–75 years, body mass index (BMI) ≤45 kg/m², glycosylated hemoglobin (HbA1c) 7–10% (53mmol/mol to 86mmol/mol) and treatment-naive to Empagliflozin were included. Treatment was given for 24 weeks, and allocation was done through randomization.

RESULTS:

Out of 745 screened patients, 333 met the eligibility criteria, and a total of 244 (73.3%) patients were enrolled. More hypoglycemic events were reported in the standard care group, whereas positive urine culture, fungal infection, dehydration, and hypotension occurrence were comparable between the two groups. The 6 months mean HbA1c reduction was significant in both groups; (Group-A: 0.91±0.15; p<0.001 vs. Group-B: 0.79±0.14; p<0.001). Efficacy comparison at 6 months revealed a significant reduction in weight and systolic blood pressure (SBP) in Group A only (Group-A: 1.4±0.4 kg; p<0.002 vs. Group-B: 0.01±0.5 kg; p<1.00), (Group-A: 5.1±1.7 mmHg; p<0.012 vs. Group-B: 2.3±1.7mmHg; p<0.526).

CONCLUSIONS:

Empagliflozin was a safe drug compared to standard care in Pakistani Muslim patients with diabetes. It was as effective as standard care in the clinical setting but achieved glycemic control by reducing weight and SBP in type 2 diabetes patients.

TRIAL REGISTRATION:

This study was registered in the NIH US National Library of Medicine clinical trials registry at Clinicaltrials.gov with the registration number: NCT04665284 on 11/12/2020.

KEYWORDS:

SLT2 inhibitors, HbA1c, Safety, Efficacy, Pakistani, Muslims



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Evaluating the palatability of an oral nutritional supplement (Livity®): A consumer-based, cross-sectional study.

PUBLISHED IN

International Journal of Endorsing Health Science Research. 2022

JOURNAL CATEGORY: Y

AUTHORS

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⁵University of Hyogo, Kobe-Japan.

BACKGROUND:

There is a substantial global market for dietary supplements that are frequently used. These products are meant to supplement diets while also enhancing health and wellness. Fewer studies have been conducted on sensory and consumer science compared to the substantial quantity of dietary supplement research on nutrition, dietetics, and medicine. Hence the present study aimed to assess the consumer's attitude toward the physical and sensory attributes of the nutritional supplement.

METHODOLOGY:

262 consenting non-diabetic subjects of either gender ≥ 40 years of age participated in this cross-sectional study. After enrollment, the subjects were requested to consume 53.8 gm of nutritional supplement dissolved in 195 ml of cold water, followed by an interview-based survey. The consumer's preference for product sensory and physical characteristics such as appearance, taste, aroma, mouth feel, and post-consumptions feel was inquired. Preferences for the oral (Vanilla flavor) nutritional supplement (Livity®). Factors were assessed using the scoring test of a 7-point numerical scale, i.e., ranging from 1 (Strongly Disagree) to 7 (Strongly Agree).

RESULTS:

Around 66.50% of subjects valued the taste of the nutritional supplements the most, followed by flavor (13.0%), aroma (9.20%), color (5.60%), energizing effect (3.60%), mouth feel (3.10%) and aftertaste (0.50%). The mean score for all the physical and sensory parameters was higher than 5, except for grainy mouth feel (mostly perceived as a negative attribute) and energetic feeling post-consumption. Around 92.4% agreed that the mouth feel of the consumed, oral nutritional supplement was smooth, 75.8% agreed on flavor quality, 70.7% were satisfied with the taste, and 82.8% reported that the smell was pleasant.

CONCLUSION:

It is concluded that the physical and sensory attributes of the oral nutritional supplement (Livity®) were highly rated in this consumer attitude-based survey.

KEYWORDS:

Oral Nutritional Supplement, Palatability, Flavor, Aroma.



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Knowledge of Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) and their Adverse Effects among Medical and Non-Medical Students

PUBLISHED IN

Pakistan Journal of Medicine and Dentistry. 2022

JOURNAL CATEGORY: Y

AUTHORS

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AUTHOR INSTITUTE DETAILS

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BACKGROUND:

Non-steroidal anti-inflammatory drugs (NSAIDs) are the common analgesics, antipyretics, and anti-inflammatory drugs. Though, their frequent consumption cause peptic ulcer disease (PUD) and other unfavorable side effects. This study aimed to compare the knowledge and attitude of Karachi medical and non-medical students about NSAIDs and their adverse effects.

METHODS:

A comparative cross-sectional study was conducted from June 2021-2022, including 344 students from four universities in Karachi, with an equal ratio of medical (n=172) and non-medical(n=172). The study participants were requested to fill out the questionnaire based on the usage of NSAIDs, over-the-counter availability, side effects, etc. The knowledge of adverse drug reactions, reasons for self-medication, and NSAID prescriptions were compared using the Chi-square/Fisher Test.

RESULTS:

The results showed that about 88.4% of students had some previous knowledge of NSAIDs, of which 98.2% were from the medical sector and 78.4% were from the non-medical sector. 68.6% of students were familiar with the NSAIDs' adverse effects, 90.1% were medical students, and 47.1% were non-medics. Only 47.7% of the total population was aware of PUD, with 80.2% attending medical universities. While most of the self-medicating students were non-medical 84.7%.

CONCLUSION:

Medical students of Karachi possessed more knowledge about NSAID use and its adverse effects. The most known prevalent adverse was PUD, which indicates GI bleeding. It is recommended that there is a dire need for awareness concerning the usage, safety and adverse effects of NSAIDs.

KEYWORDS:

NSAIDs; Peptic Ulcer Disease; Medical Students; Non-medical Students.



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Malnutrition among patients with Type-2 Diabetes Mellitus

PUBLISHED IN
Pakistan Journal of
Medical Sciences. 2022

IMPACT FACTOR: 2.26

JOURNAL CATEGORY: X

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OBJECTIVE:

The present study aims to evaluate the nutritional status of diabetic patients using Subjective Global Assessment (SGA) tool.

METHODS:

A prospective cross-sectional study was conducted at Endocrine and Medicine Department of Lady Reading Hospital from September 2019 to March 2020. A total of 359 patients diagnosed with Type-2 Diabetes Mellitus (T2DM) were included in the study. The malnutrition status was assessed using SGA, and clinical parameters including albumin and total leukocyte count (TLC).

RESULTS:

We have observed mild to moderate malnutrition among 48.2% patients, and severe malnutrition in 10.6% patients as per the SGA scoring. Among the factors associated with nutritional status were BMI ($p < 0.01$), and presence of CAD (DM complication) ($p = 0.015$). As per the correlation analysis, BMI had a significant negative correlation with nutritional status ($r = -0.351$; $p < 0.01$).

CONCLUSION:

It is concluded from the study results that there is a high prevalence of malnutrition among the enrolled diabetic patients.

KEYWORDS:

Malnutrition, Type 2 Diabetes Mellitus, Subjective Global Assessment



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Posterior fossa epidural hematoma: A 6-year management experience

PUBLISHED IN
Pakistan Journal of
Medical Sciences. 2022

IMPACT FACTOR: 2.26

JOURNAL CATEGORY: X

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OBJECTIVE:

Through this study, we sought to evaluate the management of posterior fossa extradural hematoma (PFEDH).

METHODS:

An observational was conducted at the Neurosurgery Department of Lady Reading Hospital in Peshawar from January 2015 to December 2020. All patients with a traumatic acute extradural hematoma (EDH) of the posterior fossa were included, irrespective of age and gender. The clinical predictors and outcomes were assessed, including the CT-scan findings and Glasgow Coma Scale (GCS) score.

RESULTS:

A total of 104 cases with posterior fossa extradural hematoma were identified from 1252 extradural hematoma patients admitted during the study period. The mean age of the enrolled patients was 18.17 ± 14.31 years. Most of the patients were male (65.39%) and belonged to the pediatric age group, i.e., < 15 years (60.6%). CT scan brain was done in all the cases for diagnosis. In 68.3% of cases, an associated occipital bone fracture was observed. Surgery was done in almost 71.2% of cases, and most patients experienced good recovery after surgery, as indicated by the GOS score. Linear regression model revealed that treatment ($\beta = -0.20$, $p = 0.038$), time duration between surgery and trauma ($\beta = 0.43$, $p = 0.000$) and GCS category ($\beta = -0.47$, $p = 0.000$) were significantly associated with PFEDH outcomes.

CONCLUSION:

In conclusion, PFEDH was frequent among males and the pediatric age group. Serial CT brain is highly recommended in all suspected cases for early diagnosis.

KEYWORDS:

Posterior Fossa, Epidural, Hematoma, Glasgow Coma Scale (GCS), CT-Scan.



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Delayed diagnosis in Vitamin D-dependent rickets type II results in severe skeletal deformities

PUBLISHED IN

Journal of the Pakistan Medical Association. 2022

IMPACT FACTOR: 0.781

JOURNAL CATEGORY: X

AUTHORS

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ABSTRACT:

Vitamin D-dependent Rickets Type II (VDDR-II) is a rare autosomal recessive disorder caused by a vitamin D receptor gene mutation, leading to end-organ resistance to 1,25-dihydroxyvitamin D 1,25(OH)₂D. We aimed to investigate two cases of VDDR-II. Case 1 was of a 14-year old male, presenting with bone pains, bowing of legs, multiple bone deformities, and fractures since childhood. On examination, Chvostek's and Trousseau's signs were positive, and there was no alopecia. Case 2 was a 15-year old male who presented with pain in both legs since childhood and difficulty in walking lately. Upon investigation, it was found that bowing of legs, and Chvostek's and Trousseau's signs were positive. Both cases had severe hypocalcaemia, normal/low phosphate levels, and high alkaline phosphatase (ALP). Vitamin D levels were normal, and 1,25(OH) Vitamin D was very high, thus confirming the diagnosis of VDDR II. Both of the cases highlight a tremendous delay in diagnosis, resulting in severe adverse skeletal outcomes.

KEYWORDS:

Vitamin D, Delayed Diagnosis, Vitamin D - Dependent Rickets Type II (VDDR-II).



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Determining the frequency of Plummer Vinson Syndrome among patients having dysphagia presenting at district Bahawalpur

PUBLISHED IN

Journal of University Medical & Dental College. 2022

JOURNAL CATEGORY: Y

AUTHORS

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BACKGROUND & OBJECTIVE:

Plummer Vinson syndrome (PVS) is a rare triad of dysphagia, iron deficiency, and esophageal webs. This study aims to assess the frequency of PVS in patients presenting with dysphagia.

METHODOLOGY:

A cross-sectional study was conducted at the Department of Otolaryngology from 1st April 2020 to 31st March 2021. A total of 164 patients having dysphagia for a minimum of two weeks duration were enrolled. The patient's data was recorded using a pre-designed questionnaire for PVS assessments, complete blood count, serum ferritin levels and barium swallow test results were obtained, and a radiologist was consulted for the upper esophageal web.

RESULTS:

The observed frequency of PVS among patients with dysphagia was 11(6.7%). Female gender turned out to be significantly associated with PVS occurrence (p=0.001), while age (p=0.748) and duration of dysphagia (p=1.00) showed no significant association with it. Among those with PVS, 72.7% of patients were >40 years of age, 90.9% were females, and 81.8% had a duration of dysphagia >4 weeks.

CONCLUSION:

It is concluded that PVS is not very frequent among patients with dysphagia. But since it increases the risk of squamous cell carcinoma of the pharynx and the esophagus, therefore, such patients should be followed closely for the presence of PVS and treated promptly to avoid morbidity and mortality.

KEYWORDS:

Plummer Vinson Syndrome, Dysphagia, Iron Deficiencies, Anemia.



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Effect of high-intensity interval training on cardiovascular risk factor parameters.

PUBLISHED IN

Pakistan Journal of Medical & Health Sciences. 2022

JOURNAL CATEGORY: Y

AUTHORS

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BACKGROUND:

High-intensity interval training (HIIT) was thought to be effective on physiological parameters. The present study aimed to extend the previous findings on HIIT effects on lipid profile and other physiological parameters predominantly in men.

METHODOLOGY:

Male subjects, either healthy or those with comorbid conditions like HTN and Type 2 DM, aged 20 to 70 years, and weighing ≥ 50 kg, were included in the study. To assess training response in this retrospective observational study, the subjects were required to complete pre and post-testing, which consisted of measures of body weight, blood glucose, lipid profile, serum glutamic pyruvic transferase (SGPT), and serum uric acid which was measured at baseline and 12 weeks after HIIT.

RESULT:

The mean age of the enrolled subjects (n=126) was 47.66 ± 7.52 years. After training, body weight, blood glucose, SGPT, and lipid profile significantly improved after HIIT training ($p < 0.05$). While there was only a mean decline of 0.20 ± 1.33 mg/dL ($p = 0.081$) in the serum uric acid after HIIT.

CONCLUSION:

It was observed that 12 weeks with HIIT showed a significant change in blood glucose and lipid profile levels, indicating that HIIT might help reduce cardiovascular risk.

KEYWORDS:

High-Intensity Interval Training, Lipid Profile, Glucose, Body Weight, Cardiovascular Risk Factors.



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Seroprevalence and characteristics of Coronavirus Disease (COVID-19) in workers with non-specific disease symptoms

PUBLISHED IN

BMC Infectious Diseases. 2022

IMPACT FACTOR: 3.01

JOURNAL CATEGORY: W

AUTHORS

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³University of Karachi, Pakistan.

BACKGROUND:

The population-based serosurveys are essential for estimating Coronavirus Disease-19 (COVID-19) burden and monitoring the progression of this pandemic. We aimed to assess the seroprevalence of SARS-CoV-2 antibodies and potential predictors of seropositivity in the Pakistani population.

METHODOLOGY:

This population-based seroprevalence study includes consenting subjects from the workplaces (factories, corporates, restaurants, media houses, schools, banks, and hospitals) located in the urban areas of Karachi, Lahore, Multan, Peshawar, and Quetta. We analyzed each subject's serum sample for SARS-CoV-2-IgM and/or IgG antibodies using UNIPER IgG/IgM Rapid COVID-19 Testing Kit. The subject's demographics, exposure history, and symptoms experienced (in last 7 days) were also obtained. The collected data was analyzed using SPSS version 22.0.

RESULTS:

The overall seroprevalence of SARS-CoV-2 antibodies was 16.0% (2810/17,764). The total antibody seropositivity was higher in males than females (OR 1.22, 95% CI 1.110–1.340). The symptomatic subjects had 2.18 times higher odds of IgG seropositivity while 1.2 times for IgM seropositivity than the asymptomatic subjects. The multivariable logistic regression model showed that the odds of SARS-CoV-2 total antibody seroprevalence were affected by the number of dependents (OR=1.077; 95% CI 1.054–1.099), apparent symptomology (OR=1.288; 95% CI 1.011–1.643), close unprotected contact with a confirmed or probable case of COVID-19 (OR 2.470; 95% CI 2.164–2.819), traveling history (last 14 days) (OR=1.537; 95% CI 1.234–1.914) and proximity with someone who traveled (OR=1.534; 95% CI 1.241–1.896).

CONCLUSION:

We found a reasonable seroprevalence of SARS-CoV-2 antibodies in the studied population. Several factors like the number of dependents, apparent symptoms, close unprotected contact with a confirmed or probable case of COVID-19, traveling history, and proximity with someone who traveled are associated with increased odds of SARS-CoV-2 antibody seropositivity.

KEYWORDS:

SARS-CoV-2, COVID-19, Seroprevalence, IgM, IgG, Risk Factors, Potential Predictors



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Comparison of Vonoprazan and Amoxicillin Dual Therapy with Standard Triple Therapy with Proton Pump Inhibitor for Helicobacter Pylori eradication: A Randomized Control Trial

PUBLISHED IN

Pakistan Journal of Medical Sciences. 2022

IMPACT FACTOR: 2.26

JOURNAL CATEGORY: X

AUTHORS

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OBJECTIVE:

To compare the efficacy of Vonoprazan based dual treatment versus PPI based treatment for the eradication of Helicobacter pylori infection.

METHODS:

A randomized controlled trial was conducted in Department of Medicine/ Gastroenterology Ruth KM Pfau Civil Hospital, DMC during the period of 22 June to 21 September 2021. Sample size was calculated as 96 in each Group. All patients of age 18-75 years with Helicobacter Pylori Infection were inducted and randomly allocated to two groups. Group-A: were given Capsule Amoxicillin 1 gm; Tablet Clarithromycin 500 mg; Capsule Omeprazole 20 mg all medications were given twice daily for two weeks. Group-B were given Capsule Amoxicillin 1 gm; Tablet Vonoprazan 20 mg (Vonozon©, m/s Getz Pharma, Pakistan) twice daily for two weeks. Confirmation of Hp eradication was done by stool Hp antigen test four weeks after completion of treatment. Nine and four patients were lost to follow-up in Group-A & B respectively. Analysis was conducted on 87 patients in Group-A and 92 patients in Group-B.

RESULTS:

Out of eighty-seven patients in Group-A and ninety-two patients in Group-B, 73 (83.9%) patients in Group-A and 86 (93.5%) patients in Group-B had negative H pylori result respectively after treatment (p = .042). Significantly higher frequencies of adverse events were observed in Group-A as compared to Group-B in nausea/vomiting (p = .035) and bloating (p = .045).

CONCLUSION:

VA-dual provides an acceptable eradication rate with fewer adverse events.

KEYWORDS:

Helicobacter Pylori; Vonoprazan; Proton Pump Inhibitors; Clarithromycin; Amoxicillin.



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2022 BOOK CHAPTERS

Guesstimating the COVID-19 burden: what is the best model?

PUBLISHED IN

Pandemic Risk, Response, and Resilience - COVID-19 Responses in Cities Around the World (Elsevier Publications). 2022

AUTHORS

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ABSTRACT:

There has been significant underreporting in countries that employ only a symptom-based algorithmic testing approach for COVID-19, focusing exclusively on health-conscious people who present to facilities (volunteer bias). Mass-level, population-based serologic testing has demonstrated groundbreaking results in assessing the true prevalence of COVID-19, as opposed to PCR-based positivity rates used by most governments to report official figures (which fail to capture the proportion of asymptomatic yet positive cases within the general population). Seroprevalence findings from a large-scale census in Pakistan between April and July indicated 17.7 times higher prevalence as compared to traditional PCR government testing within the same timeframe. Emerging research on COVID-19 transmission illustrates how asymptomatic infections within a country may be manifold higher than the number of PCR reported cases. In contrast to PCR tests, serologic tests are based on the qualitative, as well as titers of IgM and IgG, generated by the body in response to a SARS-CoV-2 infection. Serologic tests can detect asymptomatic carriers and assess past exposure, whereas PCR has a high false-negative rate, especially when the viral load is low, giving it a false assurance while continuing to unknowingly spread the infection. As research demonstrates that the extent of silent transmission of COVID-19 in a population may not be captured by an exclusively PCR-focused testing methodology, the most effective way to conduct massive level testing is through serologic tests as they minimize the need for hospital settings, reduce the pressure on an already overwhelmed health system, and assess the true prevalence of the disease.

KEYWORDS:

COVID-19 pandemic; PCR tests; SARS; Seroprevalence study; Transmission



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The responsibility of pharma industries for standardization of care towards hyperglycemia in pregnancy

PUBLISHED IN

Diabetes and Pregnancy: A Journey into the Past, Present, and Future of care. 2022

AUTHORS

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AUTHOR INSTITUTE DETAILS

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ABSTRACT:

Gestational Diabetes Mellitus (GDM) is reflected by the global epidemic of Type 2 diabetes mellitus (T2DM), with 223 million women aged 20-79 living with diabetes. Globally, of 76 million women of reproductive age, about 22 million women are with diabetes, and 54 million had impaired glucose tolerance (IGT) or prediabetes with potential to develop GDM if they become pregnant. Moreover, the GDM prevalence is 1-28% of all pregnancies.

Effective implementation to manage diabetes in pregnancy requires universal screening for blood glucose (BG) in pregnant women at booking at all three tiers of health care service delivery, primary, secondary and tertiary. A careful and critical reflection is required to understand why published evidence is not implemented. According to a study: "Research suggests that on average, it takes up to 17 years for only 14% of published evidence to translate into practice." There is a need to develop an inclusive system capable of assessing the impact of medical guidelines on clinical practices in Pakistan. Experts in Pakistan identified significant structural and behavioral problems in the medical fraternity and a lack of awareness in the patients' community, which create obstacles to the effective implementation of medical guidelines in Pakistan. Hence, the Pakistani health system continues to be devoid of a mechanism that compromises the following essential elements of the process: priority setting of the topic, guidelines revision timeline, source of funding, standardization of the implementation plan and maintenance of clinical registry data. The vacuum of a well-defined process and lack of government ownership increase the magnitude of discussed challenges.

One of the suggestions is to develop a consortium of pharmaceutical companies which can facilitate the research writing/implementation processes of medical guidelines. In Pakistan, the research-oriented pharmaceutical industries can lead the process by organizing information, arranging seminars on the proposed guidelines for the relevant medical community, dispersion of literature through their field workforce.

The chapter serves the purpose of understanding the problems in the dissemination and implementation of guidelines and management of clinical HIP Registry in Pakistan. It also aims to provide solutions to the system's structural flaws, focuses on the pharmaceutical industry's role in the effective implementation of standardized guidelines nationally, and assists in the practical use of the Mobile-based Registry of HIP. It can be concluded that interventions are needed to resolve structural shortcomings at multiple levels while engaging all the key stakeholders.



2022 POSTERS

Comparison of Operational Feasibility & Limits of Agreement between Simplified & Standard Methods for Home Blood Pressure Monitoring

Jaffer Bin Baqar¹, Syed Anzal Abbas¹, Wajiha Javed¹, Aamir Hameed Khan²

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Poster ID: 6.38

BACKGROUND

- High blood pressure (BP) is a leading risk factor for worldwide mortality and has become an important public health concern.(1)
- Fifty-four percent of strokes and forty-seven percent of cardiovascular deaths are attributable with suboptimal control of BP.(2)
- Pakistan's statistics of hypertension and its associated outcomes are alarming.(3)
- By the time patient is diagnosed at tertiary care hospital, there is already one organ damage involved.
- A developing country has very limited resources to manage complications of hypertension leading to stroke, MI, HF, etc.
- Early surveillance and community screening is the only means to detect early onset of hypertension. (At least 10 – 15 years are added before organ damage shows up)
- A more cost-effective strategy for the country with less access to tertiary care hospitals is to shift focus of specialist from GP.
- **Prevention is better than treatment.**

Study Rationale

Ambulatory blood pressure monitoring (ABPM), a gold standard, is recommended for the diagnosis of hypertension but not a viable approach for mass screening and diagnosis due to its limited availability and cost.(4) The National Institute for Clinical Excellence and Pakistan Hypertension League guidelines recommend home blood pressure monitoring (HBPM), which is the most feasible approach considering the economic situation of Pakistan.(5) Moreover, the utility of home blood pressure monitoring (HBPM) is restricted due to low literacy rate, insufficient knowledge and use of non-validated devices among patients and due to lack of standard clinical practices among physicians. The data on validated digital HBPM devices is scarce in Pakistan and we need simpler, cost-effective and robust alternatives for mass community surveillance, early diagnosis and management of hypertension at household level. The evidence from this study will help in updating the local hypertension guidelines as well as will bring simpler and cost-effective options for Pakistan population.

Methodology

Study Design: Cross-sectional study will be performed in a large tertiary care hospital (The Aga Khan University Hospital (AKUH)).

Sample Size: Total sample size of study would be 1160 with precision of 3% and 95% confidence interval. A minimum of 580 participants will be required in each group.

Study Arms: Both hypertensive and normotensive groups will receive a BP monitoring diary to record the BP readings in three ways:

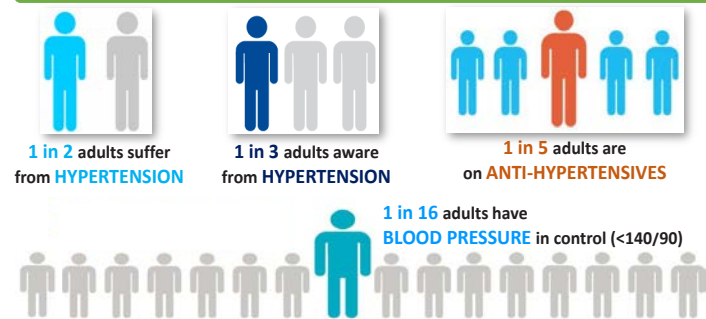
Arm-1. Standard HBPM through Omron device (record three consecutive readings of BP in morning before breakfast and in evening before dinner).

Arm-2. Random HBPM through Omron device (record four daytime random readings of BP anytime during the week)

Arm-3. Binah.ai smartphone application (record BP readings right after one-minute of observing the readings from Arm-1 & Arm-2). This application is based on vital sign extractions through photoplethysmography (PPG) signal. This app is a unique mix of signal processing and AI technologies to extract vital signs within seconds via video of a person's face through the camera on devices including smartphones, tablets or personal computers.

After a week time, each participant will return to recruiting site and share diary for data recording and follow-up questions.

Hypertension Facts of Pakistan³



Objective

To compare the operational feasibility and limits of agreement between simplified and standard methods for HBPM in participants with or without hypertension.

Eligibility Criteria

- Inclusion criteria will be as follows:**
- Volunteers of age 18 to 60 years of either gender.
 - Patients with clinic systolic blood pressure (SBP) ≥ 140 mmHg and/or diastolic blood pressure (DBP) of ≥ 90 mmHg or referred or seen routinely in the study clinics for the assessment and/or management of hypertension.
 - Participants having normal BP must have valid employment contract with either AKUH or GPPL.
- Exclusion criteria will be as follows:**
- Arm circumference >42 cm and/or arterial-venous fistula in the arm.
 - Previous episodes of arrhythmia, atrial fibrillation with rapid ventricular response, frequent ventricular extra-systole or other arrhythmias.
 - Severe physical or cognitive limitations, parkinson's disease or any other condition causing permanent tremor.
 - Mental disorders or intolerance to BP measurement method.
 - Pregnant females.

Statistical Plan

- Categorical variables will be presented as absolute frequency and percentages and continuous variables as mean and SD, or median and IQR.
- Pearson's correlation coefficient will be calculated for all methods as per study arms.
- The Bland-Altman method will be applied with the graphic representation of the correlations of the intervals (the differences between the measurements against the mean) to confirm independence between the differences obtained with each method and the magnitude.
- The kappa index will be calculated to measure the degree of agreement between the four methods, to classify the participants in subpopulations of hypertensive patients.
- All concordance and correlation results will be based on the means of SBP and DBP readings. Values of $p < 0.05$ will be considered statistically significant.
- The statistical analysis will be done using the SPSS software version-26 statistical program.

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Cost Effective means of screening for blood pressure in a LMIC: Comparison of Limits of Agreement between Simplified & Standard Methods for Home Blood Pressure Monitoring

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Abstract ID: 0232

BACKGROUND

- Pakistan's statistics of hypertension and its associated outcomes are alarming.(1)
- By the time patient is diagnosed at tertiary care hospital, there is already one organ damage involved.
- A developing country has very limited resources to manage complications of hypertension leading to stroke, MI, HF, etc.
- Early surveillance and community screening is the only means to detect early onset of hypertension. (At least 10 – 15 years are added before organ damage shows up)
- A more cost-effective strategy for the country with less access to tertiary care hospitals is to shift focus of specialist from GP.
- **Prevention is better than treatment.**

Study Rationale

The National Institute for Clinical Excellence and Pakistan Hypertension League guidelines recommend home blood pressure monitoring (HBPM) for screening and diagnosis of hypertension in Pakistan; whereas, the current gold standard of hypertension diagnosis is still ABPM.(2) However, the utility of HBPM is restricted due to the cumbersome standard method for HBPM, which requires timed blood pressure measurements pre-breakfast & pre-dinner. (3) We need pragmatic ways of measuring home blood pressure which will lead to higher patient compliance. The data on validated digital HBPM devices is scarce in Pakistan and we need simpler, cost-effective and robust alternatives for mass community surveillance, early diagnosis and management of hypertension at household level. The evidence from this study will help in updating the local hypertension guidelines as well as will bring simpler and cost-effective options for Pakistan population.

Methodology

Study Design: Cross-sectional study will be performed in a large tertiary care hospital.

Sample Size: Total sample size of study would be 345 with precision of 3% and 95% confidence interval.

Study Arms: Both hypertensive and normotensive groups will receive a BP monitoring diary to record the BP readings in three ways:

Arm-1. Standard HBPM through Omron device (record two consecutive readings of BP in morning before breakfast and in evening before dinner).

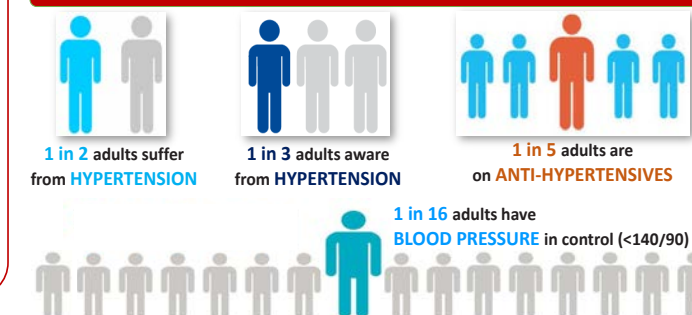
Arm-2. Random HBPM through Omron device (two consecutive BP readings randomly as per convenience for three times during a daytime)

Besides demographics, history of comorbid, medications status and BP charting, international physical activity questionnaire – short form will be filled. After a 14 days, each participant will return to recruiting site and share diary for data recording and follow-up questions.

Conflict of Interest

The 3 authors are from the public health department of a pharmaceutical but have no direct involvement with any commercial activities whatsoever related to HTN

Hypertension Facts of Pakistan³



Objective

To compare the operational feasibility and limits of agreement between simplified and standard methods for HBPM in participants with or without hypertension.

Eligibility Criteria

- Inclusion criteria will be as follows:**
- Volunteers of age 18 to 80 years of either gender.
 - Patients with clinic systolic blood pressure (SBP) ≥ 140 mmHg and/or diastolic blood pressure (DBP) of ≥ 90 mmHg or referred or seen routinely in the study clinics for the assessment and/or management of hypertension.
 - Participants having normal BP can be attendants of patients or employees from corporate sector
- Exclusion criteria will be as follows:**
- Arm circumference >42 cm and/or arterial-venous fistula in the arm.
 - Previous episodes of arrhythmia, atrial fibrillation with rapid ventricular response, frequent ventricular extra-systole or other arrhythmias.
 - Severe physical or cognitive limitations, parkinson's disease or any other condition causing permanent tremor.
 - Mental disorders or intolerance to BP measurement method.
 - Pregnant females.
 - Participants who are not willing to visit again on the follow up

Statistical Plan

- Categorical variables will be presented as absolute frequency and percentages and continuous variables as mean and SD, or median and IQR.
- Pearson's correlation coefficient will be calculated for all methods as per study arms.
- The Bland-Altman method will be applied with the graphic representation of the correlations of the intervals (the differences between the measurements against the mean) to confirm independence between the differences obtained with each method and the magnitude.
- The kappa index will be calculated to measure the degree of agreement between the four methods, to classify the participants in subpopulations of hypertensive patients.
- All concordance and correlation results will be based on the means of SBP and DBP readings. Values of $p < 0.05$ will be considered statistically significant.
- The statistical analysis will be done using the SPSS software version-26 statistical program.

References

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Presentation of Rabies Free Pakistan

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Poster ID: 6.51

Rationale

Rabies, a 100% vaccine preventable and 100% lethal disease, continues to be a critical public health issue as it kills around 2000-5000 people annually in Pakistan. ¹ Along with the disease spread among animals, the dog population remains a victim of brutal culling practices by the local authorities, which adversely affects ecosystem (sinking of poison in the soil – affecting vegetation & contaminating water) and the disease spread. The dog population has been exponentially rising primarily because a lack of a consolidated nationwide Animal Birth Control (ABC) program and awareness among the local communities in general, and children in particular. This is reflected in Pakistan's low Stepwise Approach towards Rabies Elimination (SARE) score - 1.5, which makes the country trails behind other developing countries like Bangladesh (2.5) and Philippines (3.5). ² According to an estimate, the province of Sindh alone is home to almost 2.5 million dogs. ¹ The clustering of dogs in Peri-Urban areas and inner cities localities leads to an increase of reported dog bite cases in these areas specifically.

Methodology

Rabies Free Pakistan (RFP) is a joint venture of Getz Pharma and Indus Hospital & Health Network. RFP team has achieved various milestones in the fight against Rabies after successfully scaling up project operations. It has vaccinated more than 30,000 dogs and neutered around 7,000 of them since 2018. RFP is operating in two major field sites (Saddar Central & Ibrahim Hyderi). The operations are supported by RFP's two state of art containers and multiple field teams. RFP follows the WHO approved One Health Model, which includes: Vaccination of Dogs, Animal Birth Control (ABC) and Post Exposure Prophylaxis (PEP) in humans for dog bites.

Recommendations

Rabies Free Pakistan (RFP) aims to scale up its model across all provinces in Pakistan. In order to ensure its effective implementation ,we recommend all four stakeholders (Waste & Sewage, Livestock, Local Government and Health Department) at the provincial level to develop consensus over the WHO's One health model. On the policy front, RFP proposes engagement with the federal government to declare rabies as a notifiable disease. The federal government also requires to embed PEP across all tertiary care hospitals.

Objective

Rabies Free Pakistan (RFP), which is a joint venture of Getz Pharma Private Limited and Indus Hospital & Health Network (IHHN); it was established in 2018 to eliminate Rabies from Pakistan by 2030 using the One Health Approach.



Conclusion

Pakistan can learn from the successful international models of Sri Lanka and Mexico as they adopted the One Health Approach to eliminate rabies like RFP. ³ The WHO advised One Health approach provides the policymakers with an interactive and cross-sectoral guide, which involves all the essential elements of the eco system (including animals, humans, and other components).

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Rabies Free Pakistan

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Introduction & Rationale

Rabies, a vaccine preventable disease- kills around 2000-5000 people annually in Pakistan. Brutal dog culling practices adversely affects the ecosystem: affected vegetation, contamination of water because of sinking of poison. Exponential rise of Dog population - a lack of a consolidated nationwide Animal Birth Control program and awareness among the local communities.

Key Stats:

Pakistan SARE score – 1.5
Bangladesh SARE score – 2.5
Philippines SARE score – 3.5
Dog Population in Sindh (approx.) – 2.5 million dogs



Recommendations

Effective implementation requires an effort to key structural and policy challenges. A shift in the attitude of individuals towards rabies. **Significant challenges in implementation:**
Lack of institutional capacity
Shortage of vaccine
Absence of coordination between Federal & Provincial ministry of health, livestock and local bodies.
Lack of capacity in health care workers to treat dog bite cases.



Objective

Rabies Free Pakistan (RFP), is a joint venture of Getz Pharma and Indus Hospital. It was established in 2018 to eliminate Rabies from Pakistan by 2030 using the One Health Approach. The RFP team is actively working on advocacy and policy front with the government to ensure that all stakeholders currently involved in dog culling in Pakistan have a paradigm shift towards humane methods of vaccination and ABC.

Methods

RFP team has achieved various milestones - vaccinated more than 30,000 dogs and neutered around 7,500 dogs since 2018. RFP program follows international standards and WHO approved protocols for this program in Pakistan.



Way Forward

Pakistan can learn from the successful international models of Sri Lanka and Mexico as they adopted the One Health Approach Sindh Government has replaced its dog culling model by adopting the RFP model to scale it up.

Rabies Free Pakistan - A Joint Initiative of Getz Pharma & Indus Hospital

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