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242

SCIENTIFIC PUBLICATIONS

ABSTRACTS FROM MEDICAL PUBLICATIONS FACILITATED BY GETZ PHARMA

VOL IV - 2025

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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.

This fourth issue of THE VAULT 242 is dedicated to 52 publications assisted by Getz Pharma in the year 2024.

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Medical Affairs Team

Jahanzeb Kamal
(MBBS, MBA, CRCP, CMD, MCPS, CHPE)

Ali Nasir
(Pharm D, MPhil)

Shafqat Shahzad
(BSc, MSc-Biostatistics, MBA)

Muhammad Hammad
(Pharm D, MS, Pg Dip (CADD), ACRP-CP)

Iffat Nawab
(Pharm D, CRCP)

Muhammad Nabeed Tahir
(MBBS, MsPh, CRCP)

Arsalan Arif
(MBBS)

Mahaveer Maheshwari
(MBBS, CCRP)

Mirza Wajahat Habib
(MBBS, MD, PgD)

Shaheryar Hasan
(MBBS, MBA)

Arshia Khan
(MBBS, MsPH)

Philip Nakpil
(MD, MSc, DFM, FPAFP, DPCPM)

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(MD, MBA, AITD)

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(MD)

Joan Wambui Karingithi
(MBChB)

Muhammad Nauman Shaikh
(MBBS)

Tayyab Jahangir
(MBBS)

Sana Khalid
(BDS, MBA)

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(MBBS)

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(MBBS, MS)

Junaid Qaisar
(Pharm D, MBA)

Syed Zeeshan Mansoor
(MBBS, MBA, CRCP)

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Wajiha Javed
(MBBS, M.Sc-Epidemiology & Biostatistics)

Jaffer Bin Baqar
(BSc, MSc Statistics, MBA)

Syed Kashif Amin
(B.Pharm, MBA, DMNCH, MPH)

Sehrish Asad
(BSc, MsPH)

Corporate Communications Team

Salman Moied Khan
(BSc IT with Marketing)



Khalid Mahmood
Group CEO
Getz Pharma

Since its inception in 1995, Getz Pharma has embraced the motto of 'Care for your Health'. Over the past 29 years, we have evolved into the largest pharmaceutical company in Pakistan and expanded our presence in over 45 countries globally. This achievement is attributed to our dedication to producing safe, effective, quality medicines while also benefitting the community through our numerous CSR projects.

When we claim to deliver world-class products, we mean it. Getz Pharma's manufacturing facility is pre-qualified by the World Health Organization (WHO), Geneva, and approved by the member countries of the Pharmaceutical Inspection Co-operation Scheme (PIC/S) and Eurasian Economic Union (EAEU). Our unwavering dedication to excellence extends beyond manufacturing our medicines; we

have remained at the forefront of supporting the medical and healthcare community through grants and assistance in research and development initiatives.

Regrettably, Pakistan allocates only a fraction of its GDP to enhancing the public healthcare system. Recognizing this shortfall, we consider it our duty to contribute significantly to fostering a conducive environment for continuous research, development, and the dissemination of knowledge. Such efforts benefit the medical fraternity and the patients they serve.

Today, we take pride in surpassing 242 publications supported by Getz Pharma authored by eminent healthcare providers and researchers and published worldwide. Through collaborative endeavors with healthcare professionals nationwide, we have established a robust network that promotes research and knowledge-sharing within the medical community.

We remain steadfast in our commitment to support and facilitate further advancements in research and development within this field.



Dr. Khurram Hussein
Managing Director
Getz Pharma

At Getz Pharma, our mission is simple: to improve health and quality of life through safe, effective, and high-quality medicines. We aim to serve people everywhere – men, women, and children – in urban centers and underserved communities.

In a rapidly evolving healthcare landscape, staying ahead demands continuous innovation, agility, and a deep commitment to patients. As a research-driven pharmaceutical company, we work hand in hand with healthcare professionals (HCPs) to meet the ever-changing needs of patients through cutting-edge therapies, improved treatment protocols, and robust support for clinical research. At the heart of this is our patient-centric approach; ensuring that scientific advancement is always in service of better outcomes and more accessible care.

We recognize the systemic challenges facing healthcare ecosystems in low and middle-income countries (LMICs), particularly the scarcity of funding for medical research. Our commitment goes beyond the manufacturing of medicines; we actively invest in bridging these gaps. Through financial support and expert guidance, we enable HCPs to undertake impactful studies, publish their work, and share it with the global medical community. This is part of our broader vision: to elevate the voice of researchers and clinicians, while ensuring their contributions benefit patients around the world.

Introducing The Vault 242 is a milestone achievement for us at Getz Pharma. This collection of 242 scientific publications reflects our enduring commitment to medical progress, scientific collaboration, and the pursuit of excellence in patient care. Each publication, authored by dedicated clinicians and researchers, represents a meaningful stride forward in advancing knowledge, innovation and the shared mission of improving lives.



Dr. Jahanzeb Kamal

Sr. Director – Medical Affairs,
Pharmacovigilance & Clinical
Research, Getz Pharma

Getz Pharma is a leading pharmaceutical company driven by a robust commitment to research. Guided by our core values, we seamlessly integrate research throughout the entire lifecycle of our products—from formulation development and manufacturing to rigorous testing and delivering a diverse range of safe, effective, and quality medications. This unwavering dedication positions us at the forefront of scientific data generation and discourse across Pakistan and internationally.

The Medical Affairs team at Getz Pharma is dedicated to highlighting the innovative science underpinning our work. We strive to foster open dialogue among researchers, clinicians, and the broader medical community, ensuring transparency and collaboration at every step.

Expanding our collaborations in clinical research services and publications is paramount to us. By doing so, we aim to maximize our impact on patients suffering from various diseases. With this objective in mind, we actively engage and support healthcare professionals by providing comprehensive research services, including statistical assistance and facilitating publications. We are immensely proud of our contributions, culminating in the conclusion of 52 publications in 2024 alone. These publications encompass abstracts from guidelines and manuscripts published in prestigious international and national journals recognized by the Higher Education Commission (HEC).

We are engaged in numerous clinical research projects across Pakistan and other countries. These endeavors are conducted in close collaboration with healthcare professionals and medical societies, pioneering a data-driven approach to tackle healthcare challenges by establishing disease-specific registries. This initiative enhances our understanding of disease epidemiology with positive clinical implications and showcases research data on Pakistan on various international platforms. Our long-term mission is rooted in fostering indigenous scientific data generation and dissemination through publications. We aspire to enhance awareness of local knowledge gaps and address unmet medical informational needs within our community. Ultimately, these efforts will translate into improved patient care and advancements in critical determinants of health.



Ali Nasir

Manager Clinical Research Services & Pharmacovigilance, Getz Pharma

Getz Pharma is committed to pushing the boundaries of research and improving patient care to foster a healthier society. Our vision is to support and lead scientific initiatives by transforming medical engagements, enhancing medical education, and advancing clinical research through strategic value creation, and by improving collaboration to generate and disseminate scientific medical evidence.

We provide an array of specialized research services, such as technical evaluations of synopses and manuscripts, data analysis, manuscript enhancement, and publication assistance. Through our SIGMA program (Scientific Initiatives by Getz Pharma for Medical Research Application), we offer carefully crafted workshops that empower healthcare professionals with critical skills in areas like Synopsis Writing, Research

Methodology, hands-on SPSS training, Literature Search, Medical Paper Writing, and Grant Writing. We actively promote research outcomes on global and local platforms, showcasing Pakistan's contributions to the scientific community and elevating its reputation in the research industry. Through these efforts, we aim to transform the healthcare ecosystem, cultivating an environment of ongoing learning, innovation, and scientific rigor that ultimately leads to better patient outcomes.

Getz Pharma stands out with its strong dedication to generating high-quality local data in Pakistan, equipping researchers with cutting-edge tools to excel in their work. We are sowing the seeds for long-term growth, forging robust partnerships that open doors to knowledge sharing, interdisciplinary innovation, and the creation of impactful solutions to tackle pressing healthcare challenges. These collaborations help us close gaps in scientific knowledge and spark meaningful change in the industry.

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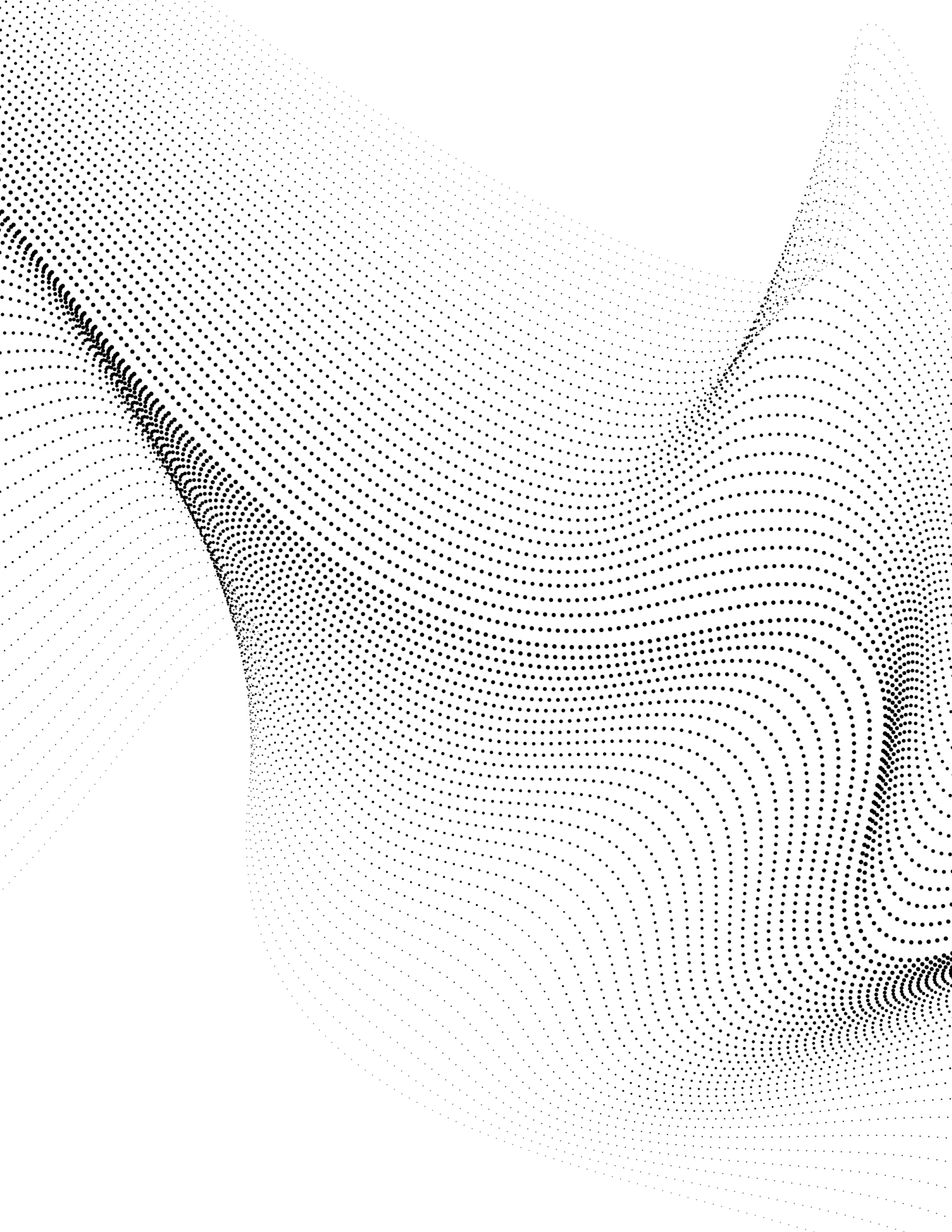


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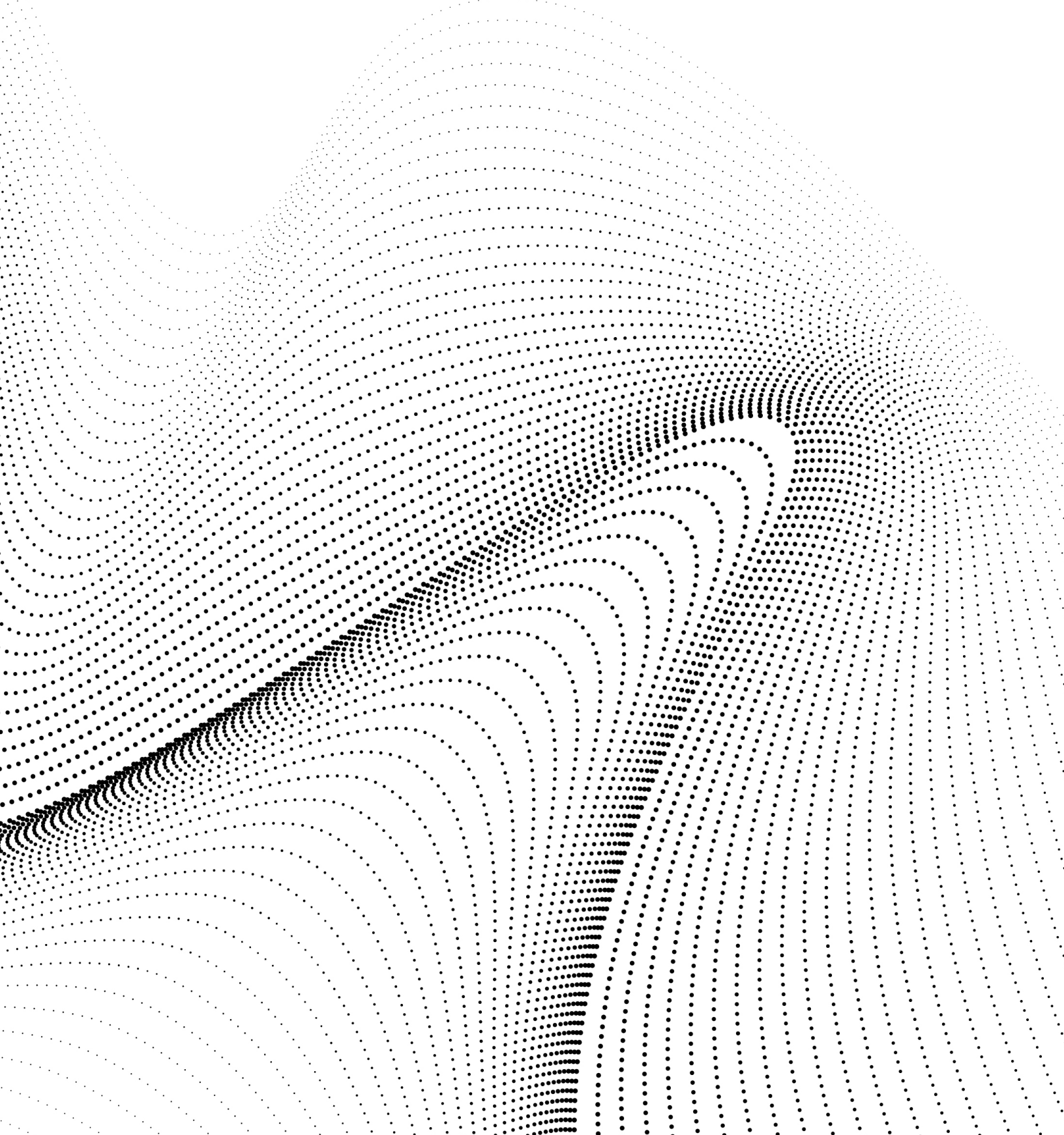


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2024 Guidelines



PAKISTAN JOURNAL OF MEDICAL SCIENCES

Bi-Monthly

AN INTERNATIONAL PEER REVIEWED MEDICAL JOURNAL FROM PAKISTAN

ISSN 1682 024X

ISSN 1682 024X

ISSN 1682 024X

Current Impact Factor: 2.2 Cite Score: 3.3 Guidelines on Low Back Pain Management December 2023

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Member since 2012
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A multidisciplinary perspective on
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A Multidisciplinary Perspective on Low Back Pain Management

Published in
Pakistan Journal of Medical
Sciences. 2024.

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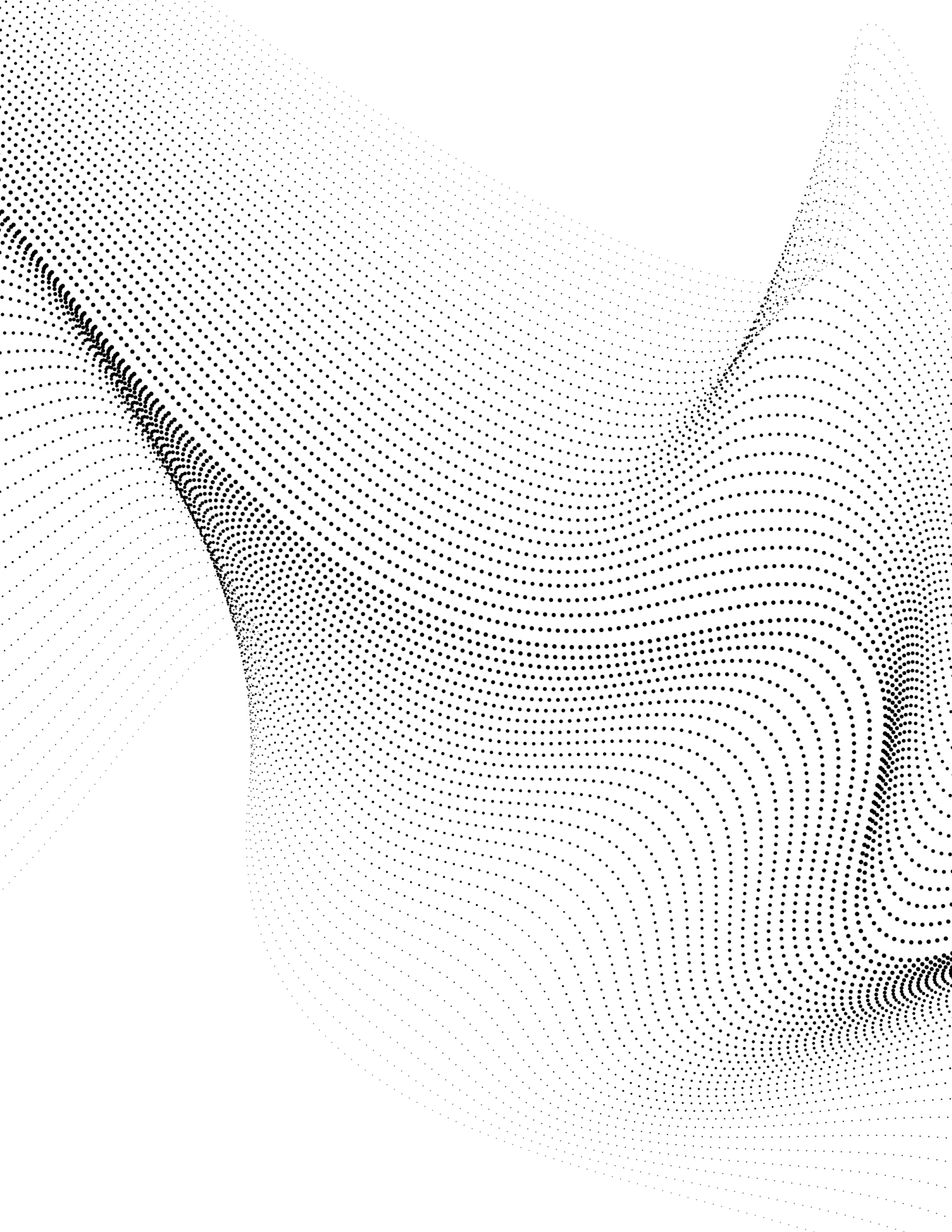


Low back pain (LBP) is a common yet complex condition with multiple etiologies, including musculoskeletal, neurological, and systemic causes. General practitioners (GPs) often face challenges in diagnosing LBP due to overlapping and non-specific symptoms, the absence of definitive diagnostic tests, and the need to recognize rare but serious underlying conditions through red flag indicators.

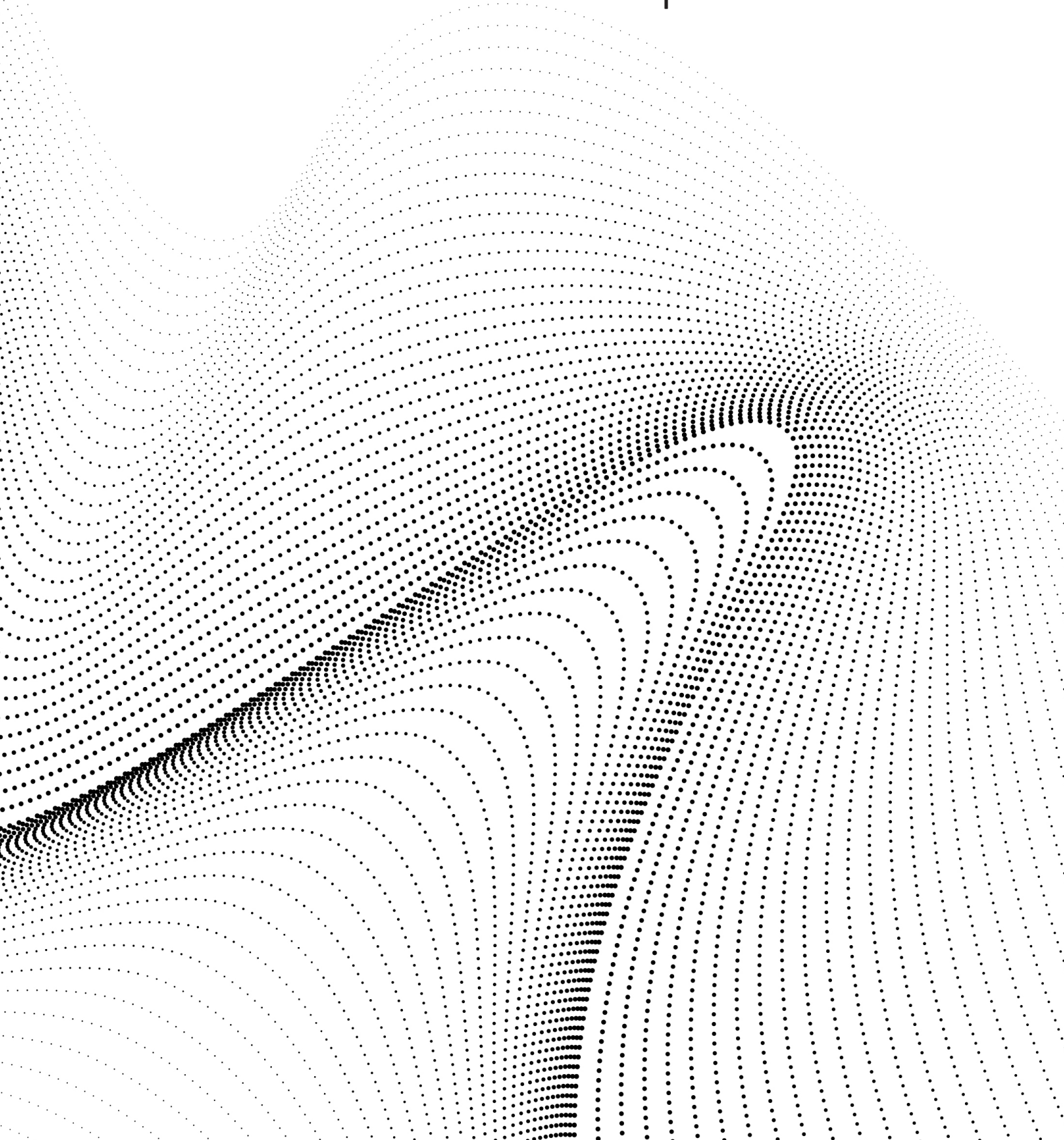
To enhance diagnostic accuracy Getz Pharms in collaboration with 5 different national societies which includes: Pakistan society of neurology (PSN), Pakistan society of orthopedic association (POA), Pakistan society of rheumatology (PSR), society for interventional pain medicine (SIPM) and society of obstetricians & gynecologists of Pakistan (SOGP) has developed multidisciplinary guidelines, providing GPs with structured evaluation criteria and clinical decision rules. These guidelines emphasize a collaborative approach involving specialists in orthopedics, neurology, physiotherapy, and pain management to ensure optimal patient care.

LBP is classified into distinct types, including mechanical low back pain, radicular pain, non-specific LBP, inflammatory LBP, and referred pain. Identifying these subtypes aids in determining appropriate treatment strategies and specialist referrals. The guidelines aim to improve patient outcomes by minimizing unnecessary tests, refining diagnostic precision, and tailoring treatment approaches

to the specific etiology of LBP. Through scientifically supported recommendations, these guidelines empower GPs to make informed clinical decisions, ultimately enhancing the overall management of LBP.



2024 Book Chapters



The Role of Social Support in Hepatitis C

Published in

Handbook of the Behavior and
Psychology of Disease

Authors

Muhammad Hafeez and Muhammad
Siddique

Author Institute Details

CMH Lahore Medical College,
Lahore, Pakistan

Abstract

This chapter explores the vital role that social support plays in the management of hepatitis C, a major global public health issue. It begins by tracing the evolution of hepatitis C, from its discovery as a viral infection primarily affecting the liver to the development of direct-acting antiviral (DAA) drugs that have revolutionized treatment options. The chapter highlights the diverse range of social support that comes from different social networks, including emotional, practical, informational, and assessment assistance. It investigates the impact of social support on treatment adherence, healthcare utilization, and clinical outcomes among people living with hepatitis C, drawing on empirical data and theoretical frameworks. The chapter also highlights gaps in practice and research and examines methods to increase social support. It offers practical advice for healthcare professionals, legislators, and future research initiatives by emphasizing the critical role that social support plays in hepatitis C management.

Keywords

Hepatitis C · Social support · Chronic illness · Treatment adherence · Quality of life · Direct-acting antivirals · Support groups · Psychosocial interventions · Well-being · Disease management · Healthcare utilization · Stigma · Coping mechanisms · Health disparities · Public health

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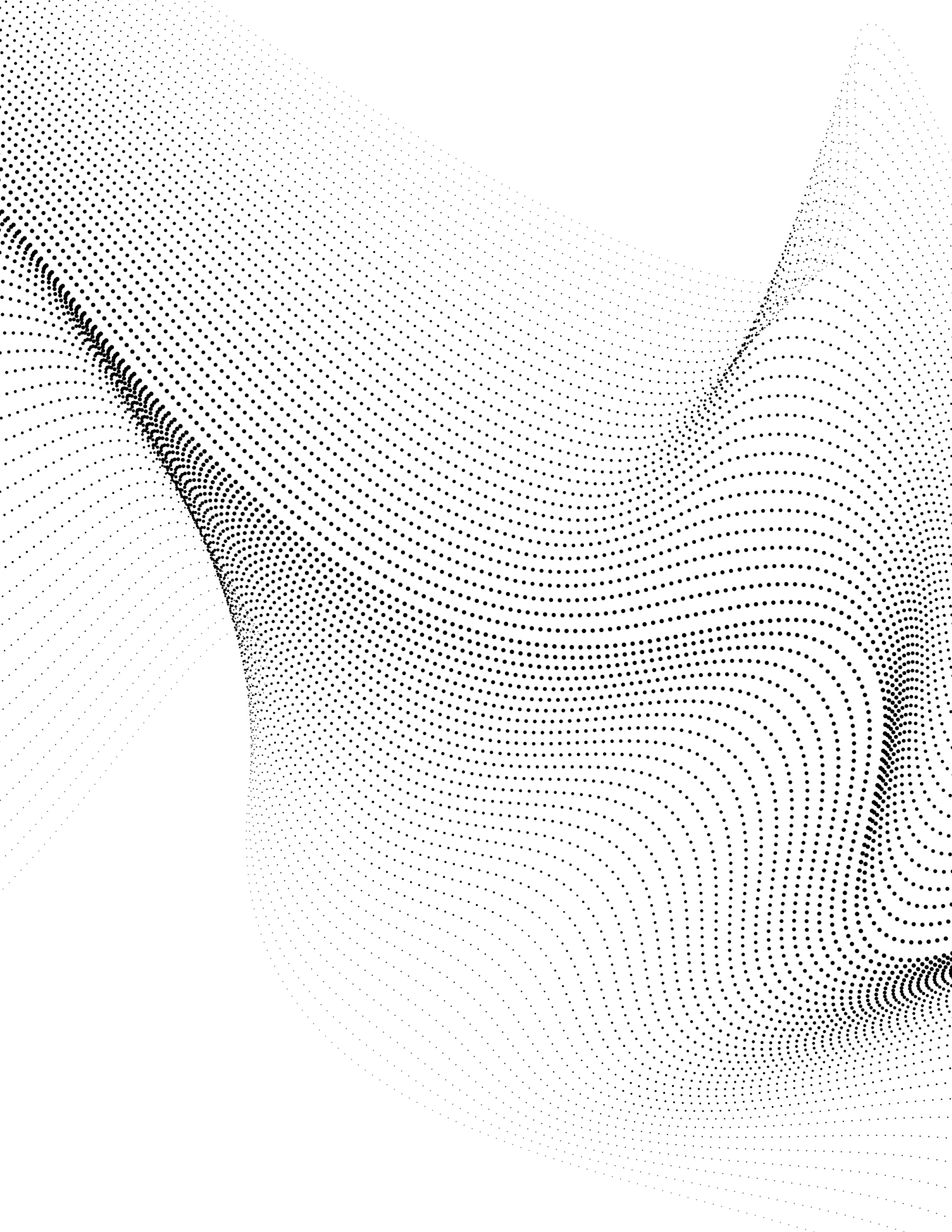


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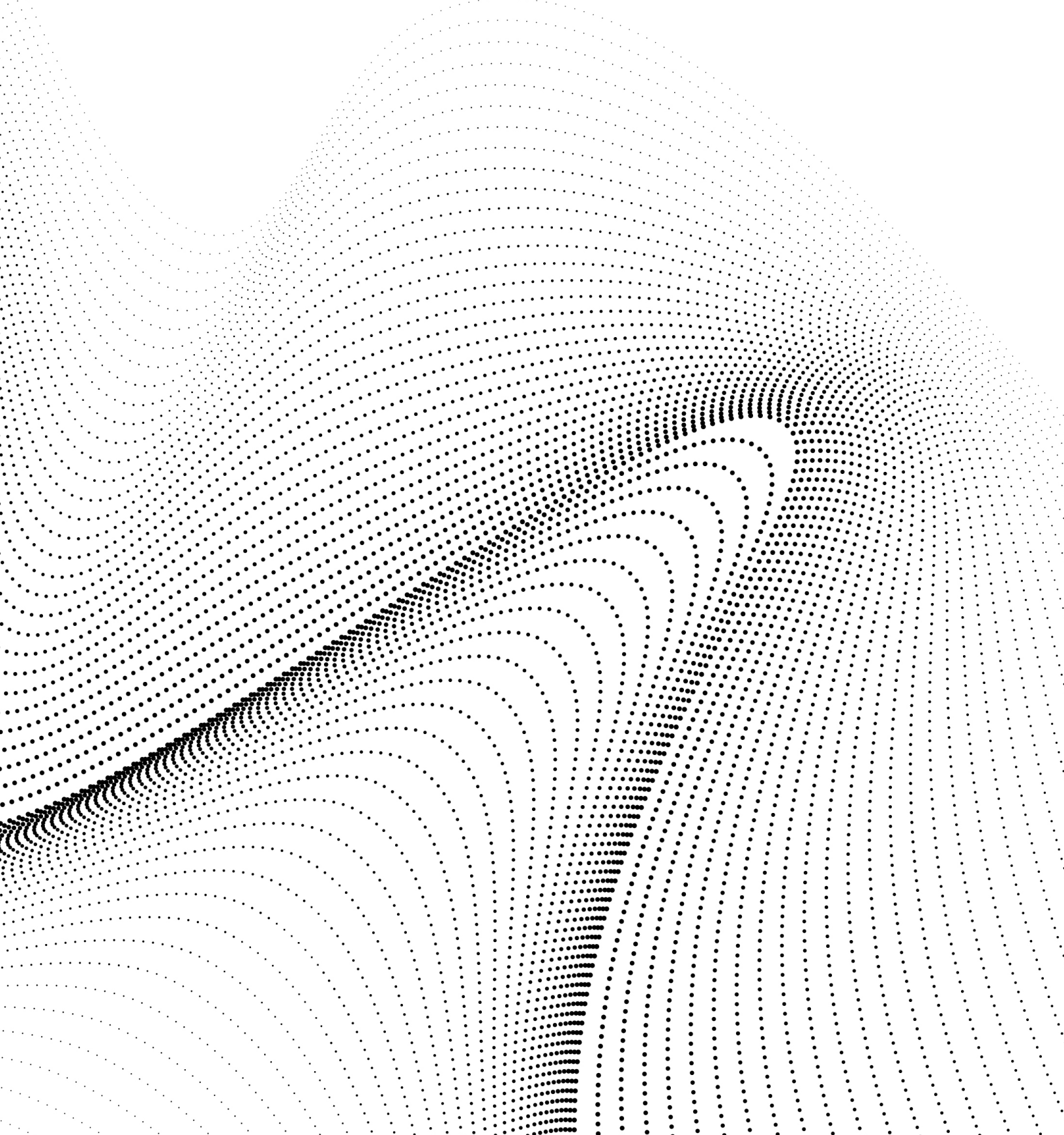
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2024 Articles



An Assessment of Fetomaternal Outcomes and Comparison Between Elderly and Younger Primigravida Conditions Among Pregnant Women

Published in

Journal of The Society Of Obstetricians And Gynaecologists Of Pakistan. 2023.

Journal Category

Y

Authors

¹Dil Ruba, ²Najma Bibi, ³Maria Ghafoor, ⁴Fauzia Anbreen, ⁵Neelam Roshan

Author Institute Details

^{1,5}Women and children Hospital, MTI, Dera Ismail Khan, Khyber Pakhtunkhwa

^{2,4}Gomal Medical College, MTI, Dera Ismail Khan, Khyber Pakhtunkhwa

Objective

The study aims to assess the fetomaternal outcomes in primigravida pregnant women and to compare the frequency of fetomaternal outcomes in elderly primigravida and younger primigravida pregnant women.

Methodology

A cross-sectional study was conducted from January 2021 - July 2021 at the Department of Obstetrics and Gynecology Gomal Medical College Dera Ismail Khan. A total of 125 female patients with Primigravida condition were included in the study, and followed till delivery. The data was noted in MS Excel and later on, analyzed using SPSS. The demographic details, complications, and fetomaternal outcomes (pregnancy-induced hypertension, pre-eclampsia, intrauterine growth restriction, fetal distress, cesarean section, low birth weight, and low Apgar score) were noted.

Results

Pregnancy induced Hypertension was observed among 8.8% of Primigravida patients, Preeclampsia in 5.6%, intrauterine growth restriction 7.2%, Fetal Distress 10.4%, C-Section 20%, Low Birth Weight 8%, and Low Apgar Score was 7.2%. Elderly primigravida was 20% and younger primigravida was 80%. Pregnancy Hypertension was observed in 8.8% (of patients, Preeclampsia 5.6%, intrauterine growth restriction at 7.2%, Fetal Distress 10.4%, C-Section was 20%, Low Birth Weight at 8%, and Low Apgar Score was 7.2%. Pregnancy Hypertension was seen in 20% of elderly primigravida as compared to 6% in young primigravida

(p 0.027) as shown Preeclampsia was seen in 16% of elderly primigravida as compared to 3% in young primigravida.

Conclusion

The study showed that elder women with primigravida have higher rates of Pregnancy induced Hypertension, intrauterine growth restriction, Fetal Distress and Preeclampsia as compared to younger women.

Keywords

Primigravida, Elderly, Younger, Fetomaternal outcome.

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A Comparative Study to Assess the Efficacy and Safety of Prostaglandin-E1 Analogue (Misoprostol) Given Oral Vs Vaginal in the Management of First Trimester Missed Abortion

Published in

Journal of The Society Of Obstetricians and Gynaecologists of Pakistan. 2023.

Journal Category

Y

Authors

¹Neelam Roshan, ²Najma Bibi, ³Maria Ghafoor, ⁴Fauzia Ambreen, ⁵Dil Ruba

Author Institute Details

^{1,5}Women and children Hospital, MTI, Dera Ismail Khan, Khyber Pakhtunkhwa

^{2,4}Gomal Medical College, MTI, Dera Ismail Khan, Khyber Pakhtunkhwa

Objective

The objectives of the study were to compare the efficacy and safety of oral and vaginal misoprostol among the patients with missed Abortion.

Methodology

A Randomized Controlled study was conducted in the Department of Obstetrics and Gynecology, Gomal Medical College, Dera Ismail Khan. The current study was conducted for a period of 6 months commencing from 5th March 2021 to 5th September 2021. A total of 106 patients with the diagnosis of missed miscarriage were enrolled in the study after ethical approval and obtaining informed consent. In group A, patients were given 50 mL of water with 400µg of oral misoprostol as a single dose. In group B, patients received 400µg of misoprostol 4 hourly vaginally up to a maximum of five doses. Efficacy, safety, and comparison of gestational ages were noted in both groups.

Results

Out of a total, 106 Subjects The efficacy was observed in 39 (73.6%) patients of group A as compared to n=48 (90.6%) patients in group B (P= 0.022) while Safety was observed in 42 (79.2%) patients in group A as compared to n=52 (98.1%) patients in group B (P= 0.002). The mean gestational age was 15.528±2.26 weeks in Group A and 15.509±2.15 weeks in Group B, highlighting the later detection of missed miscarriage. The safety was compared in both groups the comparison showed 68.0% in group A, while 91.7% in group B with a gestational age of 15-20 weeks. While the gestational age less

than 15 weeks showed 786% safety in group A, and 89.7% in group B with a p-value of 0.25.

Conclusion

Misoprostol has been widely used in gynecology and obstetrics for multiple indications. Our study showed that the misoprostol vaginal route is more efficacious than the oral route in missed abortion among pregnant women. The medication abortion and missed abortions are well managed by the misoprostol alone is effective, and safer. To enable the access of essential health services to the patients is the basic need of developing countries like Pakistan.

Keywords

Missed abortion, Misoprostol, Oral, Vaginal, Efficacy, safety

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Assessment of Microbial Diversity Pattern of Sensitivity and Antimicrobial Susceptibility in Patients Admitted with Urosepsis

Published in

Annals of Pakistan Institute of Medical Sciences. 2023.

Journal Category

Y

Authors

¹Khalid Shahab, ²Ahmad Zuhayr Mufti, ³Mohammad Areeb Iqbal, ⁴Munayal Roghani, ⁵Farhan Zeb, ⁶Umair Amin

Author Institute Details

^{1,5}Hayatabad Medical Complex, Peshawar

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Objective

To determine the spectrum of bacteria causing urosepsis and antibiotic sensitivity patterns among admitted patients with a clear diagnosis of urosepsis.

Methodology

A cross-sectional study was conducted in General Medicine OPDs at the Hayatabad Medical Complex, Peshawar from January 2022 to December 2022. Data was collected prospectively. We included a total of 800 patients with a confirmed diagnosis of urosepsis, the diagnosis was confirmed using >5 pus cells per HPF as a cut-off value. Samples were sent for culture sensitivity testing in the microbiology lab and after identification of the causative bacteria, the sensitivities to a spectrum of antibiotics were assessed.

Results

Out of the 800 enrolled patients, samples of 664 patients grew colonies, mostly comprised of Gram-negative ones. The gender distribution showed (54.70%) females as compared to (45.30%) males, with an age range of 18 -70 years. The species grown primarily is E. Coli 57.5%, Providencia Sp. 9.3%, Enterococcus faecium 7.5%, Enterobacter 7.5%, Klebsiella 2.4%, and a mixed growth pattern in 9.0% of samples. The sensitivity percentage for E. coli against Meropenem was 99.5%, Imipenem 99.6%, Colistin 99.9%, Polymyxin-B 99.9%, Fosfomycin 96.4%, Amikacin 96.7%, Gentamicin 97.4%, Nitrofurantoin 91.5%, Ceftriaxone 34.4%, Ciprofloxacin 31.5%, Piperacillin/Tazobactam 10.2%, Cefepime

39.1%, Co-Amoxiclav 19.0%, Ceftazidime 37.4% and Cefoperazone /Sulbactam 26.5%.

Conclusion

The spectrum of bacteria sensitivity showed high sensitivity towards Meropenem, Imipenem, Colistin, Polymyxin-B, Amikacin, and Gentamicin; medium sensitivity to Fosfomycin and Nitrofurantoin; and low sensitivity against Ceftriaxone, Ciprofloxacin, Piperacillin/ Tazobactam, Cefepime, Co-Amoxiclav, Ceftazidime, and Cefoperazone / Sulbactam among patients with urosepsis.

Keywords

Antimicrobial sensitivity, Spectrum, Bacteria, Culture Sensitivity, Urosepsis.

Comparison of Intracoronary Tirofiban And Intravenous Tirofiban for Major Adverse Cardiac Events and Cerebrovascular Accident

Published in
Pakistan Journal of Health
Sciences. 2024.

Journal Category
Y

Authors

¹Syed Husnain Raza Bukhari,
¹Muhammad Anjum Rana¹,
²Muhammad Shahjehan Mirza,
³Muhammad Nouman Kazmi, ¹Zia Ur
Rehman and ¹Junaid Sulah Ud Din

Author Institute Details

¹Punjab Institute of Cardiology,
Lahore, Pakistan
²Wazirabad Institute of
Cardiology, Wazirabad, Pakistan
³Combined Military Hospital (CMH),
Lahore, Pakistan

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Objective

To assess the frequency of major adverse cardiac events and cerebrovascular accidents for intracoronary tirofiban.

Methods

It was a comparative study conducted at the Punjab Institute of Cardiology, Lahore from March 2019 to March 2020. A total of 250 patients of both genders, aged between 20 to 65 years were enrolled in this study who had STEMI and have high thrombus burden or TIMI flow grade < 3 during primary PCI. They were divided into two groups namely intracoronary tirofiban group and intravenous tirofiban. The impact of intracoronary tirofiban versus intravenous tirofiban outcomes were assessed.

Results

Statistically insignificant difference in MACE (myocardial infarction, cerebrovascular accident & revascularization) between intracoronary & intravenous tirofiban groups was noted. The frequency distribution for cerebrovascular accidents (CVA) showed that haemorrhage was found similar in both groups. Ischemic stroke, in patients of the intracoronary tirofiban group compared with intravenous tirofiban group, was 1(0.8%) vs 3(2.4%) with p-value 0.348 respectively. Reversible ischemic neurological deficit (RIND) was found in 3(2.4%) in the intracoronary and 4(3.2%) in the intravenous group. Transient ischemic attack (TIA) found in the intracoronary was 8(6.4%) whereas in the intravenous group was 9(7.2%).

Conclusion

The results of our study make us conclude that tirofiban when given intracoronary or intravenous does not show any significant difference for major adverse cardiac events and cerebrovascular accidents.

Keywords

Myocardial Infarction, Cerebrovascular Accident, Revascularization, Tirofiban.

Effect of Intracoronary Vs. Intravenous Tirofiban Bolus on Myocardial Flow Grades in Acute STEMI

Published in

Pakistan Journal of Cardiovascular Interventions. 2023.

Journal Category

Y

Authors

¹Syed Husnain Raza Bukhari,
²Muhammad Anjum, ¹Abdul Basit,
³Javid Iqbal, ⁴Husnain Shoukat,
²Junaid Salah Ud Din

Author Institute Details

¹DHQ Hospital, Sheikhupura-Pakistan.
²Punjab Institute of Cardiology, Lahore-Pakistan.
³Multan Institute of Cardiology, Multan-Pakistan.
⁴THQ Hospital Mailsi District, Vehari-Pakistan.

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Background

There are a few studies about the advantages and risks of using tirofiban via the intracoronary vs intravenous route in patients with ST-segment elevation myocardial infarction. In this study, the comparison of the efficacy of intracoronary vs intravenous tirofiban is assessed.

Methodology

This comparative study was conducted at the Punjab Institute of Cardiology, Lahore, from March 2019 to March 2020. A total of 250 patients of both genders, aged between 20 to 65 years, were enrolled in this study (March 2019 to March 2020) who had STEMI and had high thrombus burden or TIMI flow grade <3 During Primary PCI. The patients were divided into two groups, namely the intracoronary tirofiban group and the intravenous tirofiban group. Both groups were compared for final TIMI flow and Myocardial blush grade. Moreover, major and minor bleeding, hematoma and mortality was compare among both groups. The data was analyzed using SPSS v23.0. The chi-square test was applied to obtain the comparative analysis. A p-value ≤ 0.05 was considered statistically significant.

Results

TIMI flow grades in both groups were not similar and showed significant differences, which indicated that both groups were independent as p-value <0.05. TIMI flow grade III was achieved in 83.2% in group A, whereas in group B, it was only 28.8%. The myocardial blush grade was compared in both groups,

and the result showed that scores in both the groups were not similar, having significant differences as the p-value was 0.00 (84.8% vs. 46.4%), major and minor bleeding results were compared among both groups and showed statistical insignificance results as p-value = 0.625 (6.4% vs. 8.0%) and 0.705 (12% vs. 13.6%) respectively. The Chi-square results regarding hematoma, Major Adverse Cardiovascular Events (MACE), and mortality in intracoronary and intravenous tirofiban groups were not statistically significant as the p-values were 0.338 (30.4% vs. 27.2%), 0.447 (34.4% vs. 32.8%) and 0.591 (2.4% vs. 3.2%) respectively.

Conclusion

In contrast to intravenous administration, the intracoronary administration of tirofiban has shown a superior improvement in myocardial flow grades, including TIMI-flow grade and Myocardial blush grade.

Keywords

Myocardial Infarction, Tirofiban, Myocardial Blush Grade, Intracoronary

Head Injury Due to Fall from Heights in Pediatric Population of a Middle Resource Country

Published in

Pakistan Journal of Neurological Surgery. 2023.

Journal Category

Y

Authors

¹Iqbal Ahmad, ²Muhammad Hassan Raza, ³Adnan Qasim, ¹Shakeel Ahmad, ¹Eram Abbas, ¹Sheraz Ahmad, ⁴Muhammad Kashif Chishti

Author Institute Details

¹The Children's Hospital and The Institute of Child Health, Multan

²Punjab Institute of Neurological Science (PINS), Lahore

³District Headquarters (DHQ) Hospital, Layyah

⁴The Children's Hospital and The Institute of Child Health, Multan - Pakistan

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Objective

One of the serious concerns for public health is unintentional injuries. Falls rank as the second most common cause of unintentional injury deaths globally, after injuries sustained in transportation accidents. The study's goals were to check the mechanisms and severity of the head injury from falls among children.

Methods

A non-randomized retrospective study was conducted and children aged 0 – 12 years (n = 228) undergoing cranial CT guidance for head injury were enrolled. All patients were treated under the supervision of the neurosurgery department. Detailed radiological evaluation was done and recorded on specialized proforma.

Results

Among the enrolled patients, mild head injury was noted in 49.1% of children while moderate head injury was noted among 40.4% of children. A total of 72 (31.6%) patients had skull fractures, of which 12 (5.3%) had a thin underlying subdural hemorrhage. Four cases of extradural hemorrhage complicated a skull fracture, and eight cases of isolated Subdural hemorrhage (SDH) were observed without a skull fracture. Of those 48 (21%), radiologically evident diffuse axonal injuries were present, and each of them included highforce injury mechanisms.

Conclusion

When children sustain minor trauma, skull fractures, and focal SDH are rather common, although most of the time there are no long-term neurological effects. On the other hand, patients with an equally severe cause of injury were the only ones who experienced diffuse brain injury with significant neurological disability that followed.

Keywords

Head injury, Trauma, Craniocerebral damage, unintentional falls

Outcomes of liver diseases in pregnant females: A study from a tertiary care medical center in Pakistan

Published in
Pakistan Journal of Medical
Sciences. 2024.

Impact Factor
1.2

Journal Category
W

Authors
¹Nazish Butt, ²Sabir Ali, ³Haleema
Yasmeen, ⁴Khalid Mumtaz

Author Institute Details
¹⁻³Jinnah Postgraduate Medical
Centre, Karachi, Pakistan.
⁴The Ohio State University,
Columbus, United States.

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Objective

To determine the etiologies and outcomes of liver disease in pregnancy in a developing country.

Methods

A total of 336 consecutive pregnant women with liver disease were included in this prospective cohort study conducted at the Department of Gastroenterology, Jinnah Postgraduate Medical Center, Karachi from August 2019 to August 2021. Patients' baseline demographic, clinical, and laboratory data and outcomes were collected on a predesigned questionnaire.

Results

Among all the pregnant females, the most common liver disease was acute hepatitis E virus (HEV) infection (37.2%), followed by preeclampsia (PEC)/eclampsia (EC), hemolysis, elevated liver enzymes & low platelets (HELLP) syndrome, and hyperemesis gravidarum (HG). The most common maternal complications were fulminant hepatic failure (FHF) in 14.9% and placental abruption in 11.0%. Fetal complications included intrauterine death (IUD) in 20.8% and preterm birth in 8.6%. The maternal and neonatal mortality rates were 11.6% and 39.6%, respectively. Among the predictors, low maternal weight, low body mass index (BMI), and low hemoglobin (Hb) were associated with increased maternal mortality. Low fetal weight, height, maternal systolic blood pressure (SBP), and low maternal Hb were independent predictors of fetal mortality.

Conclusion

In our cohort of pregnant females in a tertiary care medical center, acute HEV was the most common liver disease, followed by PEC/EC, HELLP, and HG. Maternal and fetal deaths were alarming in this group of patients and demanded careful management.

Keywords

Liver Diseases, Pregnancy, Etiology, HEV, HELLP, Fulminant Hepatic Failure, Maternal Complications, Fetal Complications, Maternal Mortality, Fetal Mortality

Audit of Perinatal Mortality and Congenital Anomalies in Oligohydramnios

Published in

Journal of The Society Of
Obstetricians And Gynaecologists
Of Pakistan. 2023.

Journal Category

Y

Authors

¹Maimoona Qadir, ²Fauzia Afridi,
³Sadia Nasir

Author Institute Details

¹⁻³Khyber Teaching Hospital,
Peshawar

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Objective

To assess the impact of oligohydramnios on perinatal outcomes, focusing on mortality rates, congenital anomalies, and associated complications in affected pregnancies.

Methods

From January 2020 to December 2021, a descriptive cross-sectional study was carried out in the gynecology department of the Khyber Teaching Hospital in Peshawar. The method of consecutive non-probability sampling was applied. The study included all women, regardless of age or parity, who came to the outpatient department in their third trimester and had an amniotic fluid index of less than five on ultrasonography. Outcome was observed in the form of effects on fetus like prevalence of different congenital anomalies, admission in neonatal intensive care unit, stillbirths, baby with apgar score of less than 7, and growth restriction

Results

The total number of oligohydramnios cases in the study period was 208, making the incidence of oligohydramnios 4%. . Taking into account the gestational age at which they presented, 24% were in 33- 37 weeks gestational age group, and 69% were 38 weeks and beyond. 44% were 2.1- 2.5 kg and 29% were more than 2.5kg.22% of patients were admitted in NICU,12% babies were growth restricted, 30% had meconium aspiration, and 6% were stillborns. The prevalence of congenital anomalies was 10%. Renal anomalies were seen in 6% of patients, pulmonary hypoplasia was

observed in 3%, amniotic bands were seen in 2%, gastrointestinal system anomalies like gastroschisis seen in 1%, and musculoskeletal system anomalies in 1% cases.

Conclusion

Neonatal mortality and morbidity rates are increased if fetus is exposed to oligohydramnios in intrauterine life. Different congenital anomalies are observed, in addition to increased rates of NICU admissions, meconium aspiration, growth restriction and neonatal mortality rates.

Keywords

Oligohydramnios, Musculoskeletal, Gastroschisis, Neonatal Mortality, Pulmonary Hypoplasia, Meconium

Modified ferriman-gallwey score and hirsutism among normal healthy female population

Published in
Pakistan Journal of Medical Sciences. 2024.

Impact Factor
1.2

Journal Category
W

Authors
¹Samina Bibi, ²Suleman Elahi Malik,
³Saima Zeb, ⁴Javeria Javed

Author Institute Details
¹⁻³MTI Hayatabad Medical Complex,
Peshawar, Pakistan.
²⁻⁴MTI Khyber Teaching Hospital,
Peshawar, Pakistan

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Objective

This study aimed to investigate the prevalence of Hirsutism by using the mFG score and to identify the mean mFG score among the normal healthy female population of Peshawar.

Methodology

A cross-sectional study was conducted among 448 normal healthy married women aged between 20 to 40 years from 14th April 2022 to 13th October 2022 at Hayatabad Medical Complex in Peshawar. The mFG score was used to evaluate Hirsutism, a score of eight or above was regarded as indicative of Hirsutism.

Results

The mean modified Ferriman-Gallwey (mFG) score was 8.89 ± 4.33 . 255 (56.9%) of the individuals had a mFG score of more than 8. These people showed mild hirsutism in 52.0% of cases, moderate hirsutism in 4.5% of cases, and severe hirsutism in 0.4% of cases. It was observed that the lower abdomen and thigh region had the highest prevalence of mild to moderate hirsutism, with a considerable number of individuals scoring two and three. Conversely, the back and buttocks showed predominantly minimal to no hirsutism, with the majority of participants scoring 0 and 1. There was no discernible difference in mean mFG scores between age groups, according to statistical analysis ($p=0.195$). Intriguingly, rates of hirsutism were found to be higher in urban versus rural populations, at 78.7% versus 36.6%, respectively ($p<0.01$). In addition 80.33% of people who had positive family history of hirsutism had mFG score of 8 or high.

Conclusion

The prevalence of Hirsutism among the normal healthy female population based on the mFG score was relatively high.

Keywords

Modified Ferriman-Gallwey Score, Hirsutism, Normal Healthy Female Population.

Diagnostic accuracy of ultrasonography in diagnosis of Carpal Tunnel Syndrome

Published in
Pakistan Journal of Medical
Sciences.2024.

Impact Factor
1.2

Journal Category
W

Authors
¹Aamir Shaukat, ²Hooria Aamir,
³Zaheer Ahmad, ⁴Umair Ahmad

Author Institute Details
¹⁻⁴ Faisalabad Medical University/
Allied Hospital, Faisalabad,
Pakistan.

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Objective

This study aimed to assess the diagnostic accuracy of Ultrasonography, considering nerve conduction study (NCS) as the gold standard diagnostic modality for carpal tunnel syndrome (CTS).

Methodology

A cross-sectional study was conducted at the Neurology Department of Allied Hospital, Faisalabad from August, 2020 to January, 2021. NCS and Ultrasonography of wrist were performed for diagnosis of CTS. The sensitivity, specificity, predictive value (NPV), positive predictive value (PPV), and diagnostic accuracy (DA) were calculated for the screening test (Ultrasonography of the wrist), taking NCS as the gold standard.

Results

The mean age of the study population was 41.53 ± 8.80 years, with female pre-dominance (71.66%). The right hand was involved in 24(40%) patients, left hand was involved in 4(6.66%) patients, and both hands were involved in 32(53.33%) patients. Among 60 patients, ultrasonography diagnosed 56 (TP+FN) as having CTS, confirmed via nerve conduction study. Sensitivity, specificity, NPV, PPV, and DA of Ultrasonography of the wrist for CTS were 92.8%, 75%, 42.8%, 98.1%, and 91.6%, respectively.

Conclusion

Based on the sensitivity and specificity, Ultrasonography may assist in diagnosing CTS.

Keywords

Carpal Tunnel Syndrome, Diagnosis, Nerve Conduction Study, Ultrasonography

Ischemic Stroke and its Correlation with Low Blood Cholesterol Levels

Published in
Pakistan Journal of Health Sciences. 2023.

Journal Category
Y

Authors
Saima Rafique, Muhammad Aslam Rind Baloch, Maria Nazir, Muhammad Saleem

Author Institute Details
¹Bhitai Medical and Dental College, Mirpur Khas, Pakistan
^{2,3}Liaquat University of Medical and Health Sciences, Jamshoro, Pakistan
⁴People's University of Medical and Health Sciences, Nawabshah, Pakistan

Objective

To evaluate the low HDL-C levels in ischemic stroke hospitalized patients.

Methodology

It is a descriptive cross sectional retrospective study conducted at Liaquat University Hospital, Hyderabad, Pakistan. The anticipated association of abnormal HDL-C levels in ischemic stroke was assessed in 200 cases. The data were collected from hospital records, patients were confirmed for stroke on the basis of CT scan. This descriptive analysis was performed based on the lab findings of patients from hospital records. Medical history, CT scans and demographic information of patients was obtained from hospital records after taking data collection permission from hospital.

Results

A low level of HDL-C was identified in 126 patients (64%) according to the study's results. When the HDL-C values of ischemic stroke patients were compared using the Chi-Square Test, the p value obtained was 0.0001.

Conclusion

The majority of ischemic stroke patients had low serum HDL-C levels. This study suggests an association of low serum HDL-C levels with susceptibility or risk for ischemic stroke.

Keywords

Ischemic Stroke, Cholesterol Levels, Lipoproteins.

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Chemical Composition of Calculi Removed From Urinary Tract

Published in

Pakistan Journal of Health Sciences. 2024.

Journal Category

Y

Authors

¹Hassan Raza Asghar, ²Muhammad Zahid Ahmad, ³Muhammad Asif, ⁴Aftab Ahmed Channa, ⁵Nauman Ahmad, ⁶Abdul Basit Niazi

Author Institute Details

¹Avicenna Medical College and Hospital, Lahore, Pakistan

²King Edward Medical University, Lahore, Pakistan

³Islam Medical College, Sialkot, Pakistan

⁴Government Kot Khwaja Saeed Teaching Hospital, Lahore, Pakistan

⁵Niazi Medical College, Sargodha, Pakistan

Objective

To analyze the different compositions of calculi removed from urinary tract.

Methodology

A descriptive study was performed in the Department of Urology, Avicenna Medical College and Hospital, Lahore, from July 2016 to October 2022. 300 Patients operated for urinary stone disease were selected as the sample population. All calculi removed from these patients were subjected to stone analysis and then results were prepared.

Results

The most common stone type based on chemical composition was calcium oxalate (52%), followed by uric acid stones (25%), mixed stones (17%) and magnesium ammonium phosphate MAP (5%). Other less common types were accountable for only 1%.

Conclusion

Calcium oxalate, uric acid and mixed composition stones are most common varieties in the draining area of our hospital setup.

Keywords

Calculi, Urinary Infection, Uric Acid, Ureterolithotomy

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Assessment of Portal Vein Thrombosis in Cirrhotic Liver Patients

Published in

Pakistan Journal of Medical and
Health Sciences.2023

Journal Category

Y

Authors

Muhammad Aslam Rind, Fida
Hussain, Maria Nazir, Saleem Rind

Author Institute Details

Liaquat University of Medical &
Health Sciences, Jamshoro

Background

PVT has a number of frequent causes, including cirrhosis of the liver, abdominal inflammation, tumour invasion, and thrombophilic disorders

Aim

To find out how frequently liver cirrhosis patients get portal vein thrombosis.

Methodology

Cross-sectional study, Department of Medicine, Liaquat University Hospital Hyderabad, Sindh, Pakistan's from 1st April 2021 to 30th September 2021. One hundred and twenty eight patients were enrolled. The demographic information like age, sex, and body mass index were noted. Hepatocellular carcinoma patients and history of thromboembolism propensity were excluded. Both male and female patients with hepatic cirrhosis and age ranged from 20 to 50 were included. The monitoring of portal vein thrombosis, Doppler ultrasonography was performed on all patients.

Results

There were 40(34.4%) female patients and 84(65.6%) male patients with average age was 51.95 7.54 years and BMI was 31.87 2.64 kg/m². Seventy nine patients (61.7%) had hepatitis C, 50 patients (39.3%) had hepatitis B, 66 patients (51.6%) had diabetes mellitus, 81 patients (63.3%) had hyperlipidaemia, and 69 patients (57.9%) had hypertension. The prevalence of portal vein thrombosis (PVT) was 81(63.3%), with 48(59.3%) of the cases involving men and 33(40.7%) involving females. Of them, 25 patients (50%) had hepatitis B and 44 (55.7%) had

hepatitis C.

Conclusion

Patients with liver cirrhosis experienced portal vein thrombosis often, and hepatitis C patients made up the majority of those afflicted.

Keywords

Thrombosis, Portal vein, Liver cirrhosis, thrombophilic disorders.

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Assessment of Non-HIV Comorbidities Among HIV-Infected Patients on Anti-Retroviral therapy (ART) in a Teaching Hospital Kohat, Pakistan

Published in

Annals of Pakistan Institute of Medical Sciences. 2023.

Journal Category

Y

Authors

¹Fahad Naim, ²Awais Naeem, ³Fahim Shah, ⁴Umair-ul-Islam, ⁵Sohail Adnan, ⁶Muhammad Hamid

Author Institute Details

^{1,5,6}Khyber Teaching Hospital/KMU-Institute of Medical Sciences, Kohat
²Khyber Teaching Hospital/KMC, Peshawar
^{3,4}KMU-Institute of Medical Sciences, Kohat

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Objective

To assess the non-HIV-related comorbidities in HIV-Infected patients surviving on anti-retroviral therapy (ART) at the HIV care center, DHQ Teaching Hospital, Kohat, Pakistan.

Methodology

This cross-sectional study was conducted for the period of 6 months at DHQ Teaching Hospital, Kohat Development Authority, Kohat from June to December 2020. Data were obtained from 446 patients on Antiretroviral therapy for at least 6 months by physicians and HIV specialist nurses., the data analysis was done using SPSS, and descriptive statistics were applied to analyze the frequencies, percentages, and comparisons.

Results

Analysis of the data from 446 patients showed that relative predominance of HIV infection in males (63.5 %), uneducated (59.42%), and middle-aged (31-60 years) (62.4%) and married (53.13%) people, with 1/3rd of the studied population being under-weight. Our study found that 54.7% of patients have non-HIV related comorbidity with (29.6%) of the patients having a single comorbidity while 25.1% had multiple co-morbidities. Among the noncommunicable disease's prevalence of diabetes mellitus (26.5%), hypertension 21.3%, and ischemic heart disease 13.2% were higher compared to obesity, chronic liver disease, chronic kidney disease, stroke & non-HIV related cancers. These co-morbid conditions had no significant relation with gender but were more common in higher age groups.

Conclusion

Our study showed high rates of co morbidities in patients of HIV disease the challenge will need multidisciplinary care rather than patients just being treated with ARV therapy. Appropriate healthcare delivery models with a multidisciplinary approach will help in combating HIV and non-HIV-related comorbidities.

Keywords

Antiretroviral therapy, HIV, Non-communicable diseases, non-HIVrelated comorbidities

Predictors of in-hospital mortality in Acute on Chronic Liver Failure

Published in
Medical Channel. 2023

Journal Category
Y

Authors

¹Marium F Waqar, ²Sulhera Khan,
³Zeeshan Ali, ⁴Shabnam Naveed,
⁵Masroor Ahmed, ⁶Shamim Kauser

Author Institute Details

Jinnah Post Graduate Medical
Centre Karachi

Background & Aim

Acute on chronic liver failure (ACLF) is a serious medical condition which results from acute derangement of liver function in preexisting liver cirrhosis and is accompanied by multi-organ failure. It must be differentiated from the acute decompensation of chronic liver disease and promptly treated as it carries a high short-term mortality. Our study aim was to determine the frequency of ACLF and risk factors of in hospital mortality of ACLF.

Methods

A total of 143 liver cirrhosis patients were enrolled in the study. Data on the ACLF grades and organ failure was recorded according to the EASL CLIF criteria. Predictors of ACLF were then determined based on regression analysis test.

Results

The mortality in the ACLF group was much higher (23.3%) than that of the non-ACLF group (12.4%). The most frequent organ failure, observed exclusively in the ACLF group, was found to be renal dysfunction (60.5%), which was followed by cerebral dysfunction (46.5%) in the same group. The deceased patients had much higher ratings overall. Among MELD, MELD-Na, CLIF-C Organ Failure and CLIF-C ACLF scores, the CLIF-C Organ Failure score was the strongest predictor of mortality (OR = 3.64, CI95% = 2.34–5.65, p = 0.01). On univariate analysis, positive odds ratio was seen with circulatory failure, MELD score, MELD Na score, CLIF-C ACLF score and EASL-CLIF OF score, whereas on multivariate analysis, creatinine, MELD

score, circulatory failure and EASL-CLIF OF score (OR = 3.64, CI95% = 2.34–5.65, p = 0.01) were seen to be the independent predictors of mortality of ACLF.

Keywords

CLIF Organ Failure score CLIF C ACLF score MELD Na Child Turcotte Pugh Score.

Diversity of uropathogens and their antibiotic resistance among diabetic patients presented to MTI-Lady Reading Hospital, Peshawar

Published in
Pakistan Journal of Medical
Sciences. 2024.

Impact Factor
1.2

Journal Category
W

Authors
¹Adeela Masood, ²Muhammad Bilal,
³Salim Badshah, ⁴Yaseen Khan

Author Institute Details
^{1,2,4}MTI Lady Reading Hospital,
Peshawar, Pakistan
³Health Department, Khyber
Pakhtunkhwa, Pakistan

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Objective

To quantify the number of various bacteria that frequently cause UTI in diabetes patients as well as to gauge their susceptibility and resistance to antibiotics.

Methodology

A cross-sectional study was conducted at the Internal Medicine Ward of Lady Reading Hospital, Peshawar, Pakistan from June 2021 to December 2021. Patients with confirmed diabetes were included in the study; however, participants receiving antimicrobial medications for a maximum of 14 days were excluded from the study. Resistance of *Escherichia coli*, *Candida*, *Pseudomonas*, *E. faecalis*, *Klebsiella*, *P. mirabilis* and *Staphylococcus* was assessed using ciprofloxacin, ceftazidime and meropenem.

Results

The findings highlighted the prevalence of *Escherichia coli* in 38.8% of patients, *Candida* in 19% of patients, *Enterococcus faecalis* in 11.8% of patients, *Pseudomonas* in 10%, *Klebsiella* in 9.5% patients, *Proteus mirabilis* 6.2% patients and *Staphylococcus* was found in 5.2% patients. According to the overall sensitivity and resistance of antibiotics in microorganisms, Meropenem showed 89.6% sensitivity and 10.4% resistance. Ciprofloxacin showed 38.9% sensitivity and 61.1% resistance and ceftazidime showed 22.7 sensitivity and 77.3% resistance.

Conclusion

UTIs were very common in diabetes patients, and *Escherichia coli* was the most common uropathogen found. Compared to male patients, more female patients had infections. The uropathogens showed a significant degree of resistance to ceftazidime and ciprofloxacin.

Keywords

Antibiotics, Uropathogens, Sensitivity, Bacterial resistance, UTI, Diabetes mellitus.

Prevalence and Impact of Hyponatremia on Hospital Stay in Subarachnoid Hemorrhage Patients

Published in

Pakistan Journal of Neurological Surgery. 2024.

Journal Category

Y

Authors

Zeeshan Ullah, Ihtisham Ullah, Imad Majeed, Muhammad Fawad Khan, Saad Ali, Asim Ali, Hina Nawaz

Author Institute Details

Lady Reading Hospital, Peshawar, Pakistan

Introduction

This research study was designed to ascertain the prevalence of hyponatremia and its impact on the duration of hospital stay in patients with subarachnoid hemorrhage (SAH) in our local population.

Materials & Methods

We carried out this study at the Department of Neurology, Lady Reading Hospital Peshawar for 1 year, which started in March 2022. The total sample size was 90 and a consecutive sampling method was used for sampling the study population. Patients aged between 20 to 70 years and who had a diagnosis of SAH were involved in included in the study, while those with confounding conditions were put in the exclusion criteria.

Results

Our study showed a high prevalence of hyponatremia (42%) in patients with SAH, and it was associated with a prolonged duration of hospital stays of 8.2 days ($SD \pm 3.5$). There was a statistical difference in the mean hospital stay between the patients with hyponatremia and those without hyponatremia ($t=3.2$, $p<0.002$).

Conclusion

Our study reported a high prevalence of hyponatremia in SAH patients and has established an association with longer hospital stays. Thus, identifying and managing patients of hyponatremia with SAH promptly should be emphasized for better results and to lessen the financial burden on families and the hospital.

Keywords

Hyponatremia, Subarachnoid Hemorrhage, Duration of Hospital Stay

To Read Full Text Article,
Please Scan QR Code



Evolving Spectrum of Dengue: A Two-Year Experience from a Tertiary Care Hospital in Pakistan

Published in
Cureus. 2024

Impact Factor
1.1

Journal Category
Y

Authors

¹Fibhaa Syed, ²Mohammad Ali Arif,
³Valeed B. Mansoor, ⁴Muhammad
Usman, ⁵Saba Ali Arif

Author Institute Details

^{1,3,5}Pakistan Institute of Medical
Sciences, Islamabad, Pakistan
⁴Shaheed Zulfiqar Ali Bhutto Medical
University, Islamabad, Pakistan

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Objective

This study focused on examining the clinical manifestations, disease severity, and outcomes among cases of dengue fever (DF) confirmed through serological testing. The study specifically targeted individuals admitted to a tertiary care hospital in Islamabad, Pakistan

Methods

This prospective observational study at the Pakistan Institute of Medical Sciences, Islamabad, Pakistan, tracked 1,003 patients from admission to discharge or death between August 2022 and November 2023. Patients were monitored, and admission criteria were established based on the identification of warning signs. The data collection process encompassed gathering demographic information, documenting clinical symptoms, and utilizing a severity classification system for the disease. Outcome measures comprised the duration of critical illness, length of hospital stay, overall outcomes (discharge or mortality), and the assessment of complications. The collected data were analyzed using IBM Statistical Package for the Social Sciences (SPSS) software version 22.0 (IBM Corp., Armonk, NY)

Results

Baseline characteristics revealed a male predominance (67.8%), with an average age of 35.77 years, and common comorbidities such as hypertension (9.3%) and diabetes mellitus (7.3%). Dengue fever was most prevalent among patients whose blood group was B+

(15.0%). Nonstructural protein 1 (NS1) was positive in 73.4% of the cases. Fever was the predominant complaint in 98.0% of instances. Common bleeding manifestations included epistaxis, gum bleeding, and hematemesis. About 52.20% of cases were observed to have severe thrombocytopenia at admission. Hospital-related aspects demonstrated a mean stay of 3.35 days, a critical phase lasting 1.68 days, and rare complications like expanded dengue syndrome (2.2%). Encouragingly, 98.9% of patients were discharged, 0.4% were shifted, and 0.7% succumbed to the disease.

Conclusion

This study comprehensively analyzes the demographic and clinical aspects of DF, emphasizing a male predominance and the fact that fever was the most common presenting complaint. The duration of hospitalization revealed a brief mean stay, a short critical phase, and low complication rates, with a high discharge rate suggesting positive outcomes.

Keywords

complications of dengue fever, outcome of dengue, characteristics of dengue patient, expanded dengue syndrome, dengue virus infection.

Pattern of Clinical Presentation in Patients With Lymphoma

Published in
Cureus. 2024

Impact Factor
1.1

Journal Category
Y

Authors
Ahmadullah. Muhammad Bilal,
Yaseen Khan

Author Institute Details
Lady Reading Hospital, Peshawar,
Pakistan

To Read Full Text Article,
Please Scan QR Code



Introduction

Lymphomas take place when cells of the lymphatic system divide and re-divide in an uncontrolled fashion, and lymphomas have been termed as a “diverse group” of cancer, playing a major role in the area of oncology. The clinical behavior and manifestations of lymphomas in the head and neck region usually lack specific characteristics that would enable attribution to a specific lymphoma entity without biopsy and histological evidence. This study aimed to determine the frequency of common clinical features among patients with lymphoma.

Methods

This descriptive cross-sectional study was conducted at the Department of General Medicine, Lady Reading Hospital, Peshawar, from October 28, 2021 to April 28, 2022. The inclusion criteria consisted of individuals who were recently diagnosed with lymphoma and were between the ages of 10 and 50, regardless of their gender. This study enrolled a total of 186 patients diagnosed with lymphoma and assessed for common signs and symptoms. The data-gathering process included in-depth interviews, evaluations of medical history, physical exams, and initial investigations. The data analysis was done using IBM SPSS Statistics for Windows, Version 20.0 (Released 2011; IBM Corp., Armonk, New York, United States).

Results

The mean age of the patients was 34.5 ± 9.6 years. Out of the total, 115 (61.8%) were men and 71 (38.2%) were women. With regard to symptoms, 134 (72%) had a fever, 80 (43%) had abdominal pain, 102 (54.8%) had vomiting, 49 (26.3%) had a headache, 111 (59.7%) had weight loss, and 17 (9.1%) had a cough. With regard to signs, 33 (17.7%) had painless lymphadenopathy, 58 (31.2%) had jaundice, 157 (84.4%) had anemia, 147 (79%) had hepatomegaly, 160 (86%) had splenomegaly, 24 (12.9%) had ascites, and 16 (8.6%) had abdominal tenderness.

Conclusion

The varied clinical appearance of lymphoma makes treatment difficult. In severe cases of lymphoma, early and timely diagnosis is crucial for proper and prompt treatment. The signs and symptoms, along with demographic information of patients, thorough medical history, imaging testing, and clinical examination, may indicate lymphoma.

Keywords

Symptoms, signs, non-hodgkin lymphoma, hodgkin lymphoma, lymphoma

Efficacy, safety, and quality of life profile of Genotype-3 Chronic Hepatitis-C Pakistani patients receiving ledipasvir plus sofosbuvir treatment

Published in
Pakistan Journal of Medical
Sciences. 2024

Impact Factor
1.2

Journal Category
W

Authors
Zahid Yaseen Hashmi, Sandeed
Hashmi, Ali Raza

Author Institute Details
Liver Centre Faisalabad, Pakistan.
Faisalabad, Pakistan

To Read Full Text Article,
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Objective

This study aimed to assess the overall treatment response of Genotype-3 Chronic HCV Pakistani Patients with or without cirrhosis to Ledipasvir plus Sofosbuvir combination.

Methodology

In this observational study, HCV Genotype-3 patients were enrolled from Liver Center, DHQ Hospital, Faisalabad and divided into two groups, i.e., non-cirrhotic and compensated cirrhotic patients. The study spanned for a period of 24 months (November 2019 - November 2021) from the first enrollment to the last follow up. Noncirrhotic patients received Ledipasvir/Sofosbuvir (LDV/SOF) 90/400mg for 12 weeks and cirrhotic patients received LDV/SOF with Ribavirin (RBV) for 12 weeks and without RBV for 24 weeks. The treatment efficacy in terms of sustained virological response (SVR12) was monitored 12 weeks post-treatment. The safety profile, and health-related quality of life (HRQoL) were monitored from baseline to follow-up visits.

Results

Two hundred and ninety out of 309 (93.85%) non-cirrhotic and 31 out of 33 (93.94%) compensated cirrhotic patients achieved SVR-12. The safety profile of the non-cirrhotic and compensated cirrhotic patients was comparable throughout the study duration. Fatigue was the most commonly reported adverse event (AE) in non-cirrhotic and compensated cirrhotic patients, followed by headache, nausea, and fever. The HRQoL improved

from baseline to follow-up visits among patients of both groups.

Conclusion

It is concluded that LDV and SOF combination regimen is safe and effective for treating Genotype-3 HCV patients without cirrhosis/compensated cirrhosis, and also improves the patient's HRQoL.

Keywords

Genotype-3, HCV, Health-Related Quality Of Life, Sofosbuvir, Ledipasvir, Ribavirin.

The Effectiveness of Vaginal Misoprostol and Intracervical Catheterization in Inducing Labour in cases of Intrauterine Fetal Mortality

Published in

Journal of The Society Of
Obstetricians And Gynaecologists
Of Pakistan. 2024

Journal Category

Y

Authors

¹Huma Munir, ²Najma Bibi, ³Atyya
Bibi Khan, ⁴Fauzia Khan

Author Institute Details

¹Women and Children Hospital, Dera
Ismail Khan

²Gomal Medical College, MTI, Dera
Ismail Khan

³Ayub Teaching Hospital,
Abbottabad

⁴Police Service Hospital, Peshawar

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Introduction

To compare the efficacy of intracervical catheterization and vaginal misoprostol in the induction of labour in intra-uterine fetal death.

Methods

This is a randomized controlled trial study was conducted from 10th January 2021 to 10th July 2021. The sample was gathered via non-probability consecutive sampling. The study comprised sixty pregnant mothers who had experienced intrauterine fetal mortality. There are two groups of patients: one for intracervical catheterization and the other for vaginal misoprostol. Both groups' vaginal deliveries occurred within 24 hours of vaginal misoprostol administration and 12 hours of intracervical catheterization, demonstrating their efficacy.

Results

A statistical analysis program (IBM-SPSS version 22) was used to analyze the data. The efficacy in both groups was compared using Chi-square test, with $p \leq 0.05$ being considered significant. The study's age range was 18 to 40 years, with Group A's mean age of 27.866 ± 2.66 years and Group B's mean age of 28.166 ± 2.69 years. 26 (86.7%) patients in group A and 18 (60%) patients in group B showed efficacy ($P = 0.019$).

Conclusion

In conclusion, intracervical catheterization proved to be more successful in inducing labour in cases of intrauterine fetal mortality than vaginal misoprostol in this regard.

Keywords

Intrauterine fetal death, Intracervical catheterization, Vaginal misoprostol.

Hepatitis B Risk Factors are Frequently Present in Children at Jinnah Postgraduate Medical Centre in Karachi

Published in
Euroasian Journal of Hepato-
Gastroenterology. 2024

Impact Factor
1.71

Journal Category
X

Authors
¹Nazish Butt, ²Lubna Kamani,
³Hanisha Khemani

Author Institute Details
^{1,3}Jinnah Postgraduate Medical
Centre, Karachi, Pakistan
²Liaquat National Hospital, Karachi,
Pakistan

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Background

Infection with the hepatitis B virus (HBV) poses a serious threat to global public health. More than 300 million instances of chronic hepatitis are brought on by it, which is the primary cause of liver disease. This study was conducted to determine the risk factors of HBV in children at Jinnah Postgraduate Medical Centre, Karachi, Sindh, Pakistan.

Materials and Methods

This cross-sectional study was conducted at the Department of Gastroenterology, Jinnah Postgraduate Medical Centre, Karachi, Sindh, Pakistan from January 2019 to April 2022. A total of 134 children aged below 16 years with HBV were recruited in this study. Demographic information was recorded. Screening for HBV was done in all patients. Investigations including liver biochemistry, hepatitis B surface antigen (HBsAg), and HBV DNA polymerase chain reaction (PCR) were conducted in the hospital along with a complete blood count and ultrasound whole abdomen. All information was collected on a predesigned proforma and evaluated using statistical package for the social sciences (SPSS), version 25.0, software.

Results

The mean age of patients was 11.02 ± 2.19 years. There were 57.46% males. The frequent risk factor was vertical transmission in 47% of children followed by blood transfusion in 23.9% of children, horizontal transmission in 13.4% of children, and prior history of surgical or

dental intervention in 17.2% of children.

Conclusion

In this study, vertical transmission was the most common route of transmission of HBV. Additionally, 11% of family members were HBV positive. None had concomitant hepatitis C virus (HCV) and HDV infection. All pregnant females should be screened. Children on chronic blood transfusion therapy should be screened annually. Additionally, birth-dose HBV vaccination should be implemented as a key step in HBV prevention among Pakistani children.

Keywords

Blood-borne transmission, Hepatitis B virus, Horizontal transmission, Perinatal transmission.

Plasma-exchange therapy in acute immune-mediated neuropathy: Effects on muscle strength and functional outcomes

Published in
Romanian Journal of Neurology.
2024

Impact Factor
0.118

Journal Category
X

Authors

¹Noor Ahmed Khosa, ¹Syed Muhammad Essa, ²Muhammad Samsoor Zarak, ¹Ahsan Ul Haq Zarkoon, ³Ismail A. Ibrahim, ¹Tamor Mumtaz

Author Institute Details

¹Bolan Medical Complex Hospital, Quetta, Pakistan

²Howard University Hospital, Washington DC, USA

³Fenerbahçe University, Istanbul, Turkey

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Background and Objectives

This study explores the impact of plasma exchange therapy (TPE) on muscle strength and functional outcomes in patients with acute immune-mediated neuropathy.

Materials and Methods

We retrospectively analyzed clinical data from patients diagnosed with acute immune-mediated neuropathy at the Department of Neurology, Bolan University of Medical Sciences, Baluchistan, from January 2016 to December 2021.

Results

The study, comprising 141 patients with various neurological disorders, underscores the efficacy of plasma exchange therapy in improving muscle strength and functional outcomes, particularly in Guillain-Barré Syndrome (GBS). Notably, after four weeks of treatment, a significant proportion of patients demonstrated improved mobility, with 51.8% able to walk without assistance. However, despite the positive response to therapy, a small percentage (2.8%) experienced unfavorable outcomes marked by expiration. Additionally, the study identifies significant associations between treatment outcomes and patient characteristics, such as the number of plasma exchange cycles and diagnosis ($p < 0.05$) emphasizing the importance of personalized treatment approaches in managing neurological disorders.

Conclusion

Our findings underscore the effectiveness of plasma exchange in enhancing muscle strength and functional outcomes in acute immune-mediated neuropathy, particularly GBS.

Keywords

plasma-exchange therapy, neurological disorders, Guillain-Barré syndrome, muscle strength, functional outcomes.

Hypertensive Retinopathy Spectrum in Tertiary Care Hospital Patients with Acute ST Elevated Myocardial Infarction

Published in

Annals of Pakistan Institute of Medical Sciences. 2024

Journal Category

Y

Authors

Daud Ahmad Jan, Tariq Nawaz, Wasim Sajjad, Adil Bilal, Sami ur Rehman, Rahid Ullah

Author Institute Details

Lady Reading Hospital, Peshawar

Objective

To ascertain the prevalence of hypertensive retinopathy in patients with acute ST elevated myocardial infarction.

Methodology

This descriptive cross-sectional study was conducted from May to November, 2019, at the Lady Reading Hospital's Cardiology Department in Peshawar. Patients of all genders, ages 40 to 70, were included. Two skilled ophthalmologists used a RIESTER ophthalmoscope to perform a fundoscopy. After a fundoscopy, consensus was agreed upon, and patients' risk of hypertensive retinopathy was evaluated. Hypertensive retinopathy was stratified by age, gender, smoking status, diabetes, and BMI to assess potential effect modification. Stratified chi-square tests were utilized, with a significance level of $P < 0.05$. SPSS version 20 was used to enter and analyze all of the data.

Results

The mean age of participants in this study was 58 years, with a standard deviation of 12.73. Male patients constituted 65% of the sample, whereas females accounted for 35%. Twenty-seven percent of the patients had hypertensive retinopathy, while seventy-three percent did not. Furthermore, hypertensive retinopathy showed no statistically significant associations with age, gender, smoking, diabetes mellitus, or BMI; the p-values were greater than 0.05, indicating insignificance.

Conclusion

The study findings conclude that 27% of patients with acute STElevated myocardial infarction had hypertensive retinopathy.

Keywords

Hypertensive retinopathy, Acute ST-elevated myocardial infarction.

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A Comprehensive Analysis of Cirrhotic Cardiomyopathy Among Patients with Liver Cirrhosis at Tertiary Care Hospital, Karachi

Published in

Annals of Pakistan Institute of Medical Sciences, 2024

Journal Category

Y

Authors

¹Ravi Kumar, ²Rajesh Kumar Bansari, ³Ajeet Kumar Lohana, ⁴Rashid Qadeer

Author Institute Details

¹Altamash Institute of Dental Medicine, Karachi

²The Aga Khan University Hospital, Karachi

³Jinnah Medical and Dental College, Karachi

⁴Dr. Ruth K. M Pfau, Civil Hospital, Karachi

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Objective

To determine the prevalence and complications of cirrhotic cardiomyopathy (CCM) in liver cirrhosis patients at a tertiary care hospital in Karachi, and to analyze associated factors contributing to disease progression.

Methodology

This descriptive study was conducted at the Department of Medicine, Civil Hospital Karachi, from October 2020 to April 2021. A total of 95 patients diagnosed with liver cirrhosis were included. Data was collected using a structured format and analyzed using SPSS. Stratification was applied to assess the relationship between cirrhotic cardiomyopathy and key factors such as age, gender, and duration of cirrhosis. The study used echocardiography to evaluate cardiac function, and pro-BNP levels were measured to assess the severity of cardiomyopathy.

Results

The mean age of the patients was 43.66 ± 4.87 years, with a mean heart rate of 73.51 ± 12.41 beats/min, pro-BNP levels of 78.63 ± 7.37 pg/ml, and mean cirrhosis duration of 1.65 ± 0.99 years. Of the 95 patients, 15 (15.8%) had cirrhotic cardiomyopathy, while 80 (84.2%) did not. Gender distribution showed 48 (50.5%) males and 47 (49.5%) females. Cirrhotic cardiomyopathy was more common in patients with longer disease

duration and higher Child-Pugh scores, but the differences were not statistically significant.

Conclusion

Cirrhotic cardiomyopathy is a prevalent but often underdiagnosed complication in liver cirrhosis patients, with significant implications for disease management. Early diagnosis and monitoring are crucial to preventing adverse cardiovascular outcomes in cirrhosis patients.

Keywords

Cirrhosis, liver complications, cardiomyopathy, Hepatitis C

Assessment of Serum Lipid Profile Among Patients with Hemorrhagic Versus Ischemic Strokes at Muzaffarabad; A Comparative Study

Published in

Annals of Pakistan Institute of Medical Sciences. 2024

Journal Category

Y

Authors

¹Intafada Aslam, ²Munazza Nazir, ³Zarnab Munir, ⁴Muhammad Ilyas, ⁵Syed Rizwan Hussain, ⁶Adnan Ghafoor

Author Institute Details

¹AIMS Muzaffarabad
²AJKMC, Muzaffarabad
³Cardiac Hospital, Muzaffarabad
⁴Watim Medical and Dental College Rawalpindi
⁵SKBZH/CMH Muzaffarabad
⁶Fauji Foundation Hospital, Rawalpindi

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Objective

To assess the serum lipid level in adults with hemorrhagic versus ischemic stroke and determine the associated factors.

Methodology

A Comparative cross-sectional study was conducted at the Department of General Medicine, Combined Military Hospital Muzaffarabad, Azad Kashmir from 30-3-2020 to 30-9-2020. Out of 100 patients were enrolled and divided into two different groups. 3ml of blood was drawn and sent for fasting lipid profile to the single institutional laboratory. The blood samples were analyzed enzymatically using an autoanalyzer. All the obtained information was analyzed using SPSS.

Results

In ischemic stroke patients, the mean TC was 227.20 ± 16.47 mg/dl; among hemorrhagic stroke patients, mean total cholesterol levels were 203.5 ± 16.8 with the value of $P = < 0.001$. In ischemic stroke patients, the mean LDL was 145.18 ± 16.98 ; in hemorrhagic stroke patients, the mean LDL was 131.96 ± 12.12 ($p = 0.001$). In ischemic stroke patients, the mean TG was 203.18 ± 57.74 mg/dl while in hemorrhagic stroke patients, the mean TG was 164.67 ± 53.25 with a value of $p = 0.001$.

Conclusion

This study concluded that the mean TC, HDL, LDL, and TG of the patients was 215 ± 20.42 mg/dl, 37.77 ± 4.47 mg/dl, 138.57 ± 16.11 mg/dl, and 183.93 ± 58.55 mg/dl respectively. This study further concluded that is substantial correlation exists between the serum lipid profile of adults and the type of stroke.

Keywords

Stroke, HDL, LDL, Serum Lipid Profile hemorrhagic, ischemic strokes.

Comparison of Outcome of Septoplasty with and without Intranasal Splintage in Patients Admitted to a Tertiary Care Hospital, Peshawar

Published in

Annals of Pakistan Institute of Medical Sciences, 2024

Journal Category

Y

Authors

¹Noor Hayat Khan, ²Haider Zaman, ³Mubasher Ullah Jan, ⁴Syed Muddasir Shah, ⁵Sumbal Rastbaz, ⁶Majid Ali, ⁷Maimoona Ismail

Author Institute Details

¹⁻⁶Mardan Medical Complex, Mardan, Pakistan
⁷Riphah International University, Islamabad, Pakistan

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Objective

To compare outcome of septoplasty with and without intranasal splints in patients admitted in Khyber Teaching Hospital, Peshawar

Methodology

A Randomized controlled trial was done at department of ENT, Khyber Teaching Hospital, Peshawar from 21-01-2020 to 21-07-2020. Patients with diagnosis of symptomatic DNS, aged between 15 to 30 years, both genders and undergoing septoplasty for symptomatic Deviated Nasal Septum for primary surgery were included. Patients were randomly allocated into two groups using a coin toss method. Patients in group A were subjected to intranasal splintage packing while patients of group B were not be subjected to intranasal splintage. Patients in both groups was assessed on the first postoperative day, for degree of pain. Follow-up visits were scheduled after first and third weeks following the surgery. All the data was entered and analyzed in SPSS Version 23.0.

Results

The mean age of the whole sample was 22.7 ± 4.9 years. Average age in the group A was 22.3 ± 4.9 years compared to 23.3 ± 5.0 years ($p = 0.271$). 60% in group A were males compared to 61.7% in group B ($p = 0.852$). On follow-up, out of an overall sample of 120, mild, moderate, and severe pain and bleeding were recorded in 35%, 45%, and 20% (pain) and 35%, 30%, and 35% (bleeding), respectively. In group A, 30% had mild pain compared to 40% in B group ($p = 0.467$), 50% in A group had mild bleeding compared to 20% in B group

($p = 0.002$), 30% in A group developed crusting compared to 20% in the B group ($p = 0.206$), and 20% in the A group had synechiae compared to 10% in the B group ($p = 0.125$).

Conclusion

The outcome of septoplasty with splints not observed significantly differ from septoplasty without splints, except in the case of postoperative bleeding.

Keywords

Septoplasty, splints, pain, bleeding, crusting, synechiae, visual analogue scale.

Comparison of Intravenous Paracetamol and Intravenous Ketorolac in Postoperative Pain Control After Hip Surgery

Published in

Annals of Pakistan Institute of Medical Sciences. 2024

Journal Category

Y

Authors

¹Yasir Umer, ²Syed Junaid Ismail,

³Aamer Nisar, ⁴Waleed Umer,

⁵Muhammad Rizwan Ali

Author Institute Details

¹⁻³Ali Medical Centre Islamabad

⁴Combined Military Hospital, (CMH) Rawalpindi

⁵Jinnah Hospital, Lahore

Objective

To compare the analgesic effects of intravenous paracetamol versus ketorolac to control pain after hip surgery.

Methodology

This prospective comparative study was conducted at Ali Medical Centre Islamabad from Dec 2022–Dec 2023. One hundred and eighteen (n=118) patients who underwent hip surgeries were included in this study. Patients were equally distributed into two groups. In group A, intravenous Paracetamol was administered for post-surgery analgesia. In group B, intravenous ketorolac was utilized for pain relief. A Visual Analogue Scale (VAS) was used to assess pain in both groups at 2, 6-, 12-, 24-, and 48-hours post-surgery. Collected data was analyzed using the SPSS version 23.

Results

One hundred and eighteen (n=118) patients had a mean age of 61.5 ± 0.5 years. 43(36.4%) patients were male and 75(63.6%) patients were female. Significant pain (VAS score >4) in Group A at 2, 6-, 12-, 24-, and 48-hours postsurgery was present in 29(49.1%), 9(15.2%), 9(15.2%), 7(11.8%), and 18(30.5%) patients respectively. In Group B, the significant pain (VAS score >4) was recorded at the same time intervals, in 6(10.1%), 4(6.7%), 2(3.3%), 1(1.6%), and 3(5.0%) patients respectively. The mean doses of rescue analgesia required in Group A was 1.3 ± 0.5 and in Group B, it was 0.3 ± 0.6 (p-value ≤ 0.001).

Conclusion

Intravenous ketorolac provides better analgesia than paracetamol after hip surgery. Moreover, doses of rescue analgesia required with intravenous paracetamol were more as compared to ketorolac.

Keywords

Analgesia, Hip, Ketorolac, Paracetamol.

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Prevalence of Parasitic Disease Burden in the Adult Population Presenting With Persistent or Chronic Diarrhea

Published in
Cureus. 2024

Impact Factor
1.1

Journal Category
Y

Authors

¹Mehwash Iftikhar, ²Mian Mufarih Shah, ³Sheraz J. Khan, ⁴Imran Khan, ⁵Muhammad Bilal Khattak, ⁶Nazir Shah, ⁷Saeed Ur Rahman

Author Institute Details

^{1-4,6-7}Hayatabad Medical Complex, Peshawar, Pakistan
⁵Khyber Girls Medical College, Peshawar, Pakistan

To Read Full Text Article,
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Objective

Parasitic infection is an overlooked cause of diarrhea in adults. It can cause persistent or chronic diarrhea that contributes to a significant burden on the overall morbidity of the population. Stool sampling would aid in the diagnosis of parasitic infection in adults presenting with diarrhea.

Methodology

A cross-sectional study was conducted from January to June 2024 at Medical Teaching Institution (MTI)- Hayatabad Medical Complex, Peshawar, Pakistan. A total of 500 stool samples were collected using nonprobability consecutive sampling. All the patients presenting with complaints of persistent or chronic diarrhea to the medical outpatient department or admitted to the medical units were included in the study. Patients with bloody diarrhea and those less than 13 years of age were excluded from the study. Verbal and written informed consent was obtained from all the patients included in the study. The stool samples of all the patients were collected, reported, and verified by the microbiology department.

Results

Out of 500 stool samples of the patients with persistent or chronic diarrhea, 174 (34.8%) were found to be infected with cysts or trophozoites of parasites. Gender distribution of parasitic infections showed that 89 out of 245 females (36.3%) and 85 out of 255 males (33.3%) were affected. The comparison between genders yielded a p-value of 0.482. All the patients showed mono parasitism. The

most common isolate was Giardia lamblia in 90 (51.72%) cases, followed by H-Nana in 49 (28.17%) isolates, Entamoeba histolytica in 16 (9.20%), Ascaris lumbricoides in 14 (8.04%), Trichuris trichura in two (1.15%), Taenia saginata in two (1.15%), and Cryptosporidium in one (0.6%) infected patient.

Conclusion

Parasitic intestinal infections, particularly Giardia and H-Nana, are prevalent yet overlooked causes of persistent and chronic diarrhea in adults. These findings underscore the importance of routine stool examination as a cost-effective diagnostic tool, potentially improving patient outcomes and reducing unnecessary medical interventions.

Keywords

Adult population, chronic diarrhea, intestinal parasitic infection, persistent diarrhea, prevalence.

Antibiogram and Antibiotic Resistance Patterns in Bacterial Isolates from Hayatabad Medical Complex, Peshawar

Published in
Cureus. 2024

Impact Factor
1.1

Journal Category
Y

Authors

¹Mehwash Iftikhar, ²Imran Khan,
³Sheraz J. Khan, ⁴Jehan Z. Khan,
⁵Saeed Ur Rahman

Author Institute Details

^{1-3,5}Hayatabad Medical Complex,
Peshawar, Pakistan
⁴University of Peshawar, Peshawar,
Pakistan

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Background

Empirical antibiotic therapy is facilitated by antibiograms as they provide local bacterial resistance data and patterns. Antibiograms are critical tools that offer comprehensive, institution-specific information on antimicrobial susceptibilities, enabling clinicians to make informed decisions about empirical treatment and guiding antimicrobial stewardship efforts. The rising incidence of multidrug-resistant (MDR) organisms is a significant challenge in countries like Pakistan.

Objective

The objective of this study was to evaluate the resistance patterns of Gram-negative and Gram-positive bacteria at Hayatabad Medical Complex (HMC) to commonly used antibiotics, with a specific focus on identifying MDR pathogens.

Methods

A retrospective study was conducted using antibiogram data from January to September 2022, focusing on both Gram-negative and Gram-positive organisms. Sensitivity patterns for antibiotics such as Ceftazidime, Imipenem, Meropenem, Amikacin, Oxacillin, and Teicoplanin were checked.

Results

Acinetobacter posed a significant challenge to treatment, displaying only 6% sensitivity to Ceftazidime. This extremely low sensitivity indicates an alarmingly high level of resistance, which is of great concern as it severely limits treatment options for Acinetobacter

infections. Such high resistance to Ceftazidime, a broad-spectrum cephalosporin, suggests that infections caused by this pathogen may require the use of last-resort antibiotics or combination therapies, potentially leading to increased healthcare costs and poorer patient outcomes. Additionally, Acinetobacter showed only 37% sensitivity to Ciprofloxacin, further confirming its status as an MDR pathogen in hospital settings.

Conclusion

The results show the growing threat of MDR organisms at HMC, Peshawar. This underscores the urgent need for robust antimicrobial stewardship programs, enhanced infection control practices, ongoing surveillance of resistance patterns, healthcare provider education, and regional collaboration to address the challenge of antimicrobial resistance. Categories: Epidemiology/Public Health, Internal Medicine, Infectious Disease.

Keywords

Antibiogram, antimicrobial resistance, empirical antibiotic therapy, gram-negative and gram-positive bacteria, multidrug-resistant organisms (mdr)

Types of Uropathogens and Pattern of Antimicrobial Resistance among Urinary Tract Infected Patients Presenting to Primary Care

Published in

Pakistan Journal of Health Sciences. 2024

Journal Category

Y

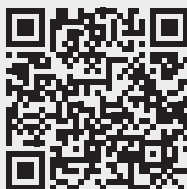
Authors

¹Salim Badshah, ¹Farman Ullah, ²Hammad Ur Rehman, ¹Abdur Rehman, ³Adnan Ghafoor, ⁴Aslam Rind

Author Institute Details

¹District Headquarter Hospital, Temargarah, Pakistan
²Almalik Hospital, Taxila, Pakistan
³Fauji Foundation Hospital, Rawalpindi, Pakistan
⁴Liaquat University of Medical and Health Sciences, Jamshoro, Pakistan

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Objective

To assess the types of uropathogens and their antimicrobial resistance profiles among patients with UTIs presenting to a private clinic in districts Dir Lower and Upper, Pakistan.

Methods

A prospective observational study was conducted, enrolling 109 patients with symptoms suggestive of UTIs. Urine samples were collected and subjected to culture and sensitivity testing. Data on patient demographics, uropathogen identification, and antibiotic susceptibility patterns were analyzed using SPSS version 21.0.

Results

Escherichia coli was the predominant uropathogen, isolated in 51.90% of patients, followed by *Pseudomonas aeruginosa* (12.00%), *Enterococcus* (9.80%), *Staphylococcus aureus* (3.80%), and *Serratia odorifera* (1.50%). Among *Escherichia coli* isolates, Nitrofurantoin exhibited the highest sensitivity (91.30%), while Ampicillin, Cefixime, Amoxicillin, and Ceftriaxone showed substantial resistance rates (>85%). *Pseudomonas aeruginosa* demonstrated high resistance to all tested antibiotics. *Enterococcus* and *Staphylococcus aureus* exhibit variable sensitivity patterns, while *Serratia odorifera* displayed uniform sensitivity to the antibiotics tested.

Conclusion

Escherichia coli was the predominant uropathogen isolated among patients with UTIs in districts Dir Lower and Upper, Pakistan, with varying susceptibility patterns to commonly prescribed antibiotics.

Keywords

Uropathogens, Antimicrobial Resistance, Urinary Tract Infections, *Escherichia coli*, Antibiotic Susceptibility.

Incidence of carotid artery stenosis in acute ischemic stroke at BMC Hospital Quetta

Published in
Romanian Journal of Neurology.
2024

Impact Factor
0.118

Journal Category
Y

Authors

¹Muhammad Essa, ¹Amanullah Kakar,
²Gul Andam, ¹Noor Ahmed Khoso,
¹Muhammad Saleem, ³Noman ul
Haq, ¹Anjum Farooq, ¹Wazir Akber,
¹Ihsan ul Haq

Author Institute Details

¹Bolan Medical Complex Hospital,
Quetta, Pakistan
²SPH Hospital, Quetta, Pakistan
³University of Balochistan, Pakistan

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Background and Objective

This study aimed to explore the prevalence, severity, and distribution of carotid artery stenosis among patients experiencing ischemic strokes.

Materials and Methods

This prospective hospital-based cross-sectional study was conducted at Bolan Medical Complex Hospital in Quetta, Baluchistan, Pakistan. The research spanned one year, from April 2022 to April 2023, involving 153 patients.

Results

The study revealed that individuals in their 50s to 70s were predominantly affected, with the most common CT findings being the right middle cerebral artery (MCA), left MCA, and right posterior cerebral artery (PCA). Among the participants, 19.0% exhibited carotid artery stenosis, with a male predominance. The distribution of stenosis severity included 8.5% with mild, 5.9% with moderate, 3.9% with severe, and 0.7% with total occlusion. The affected anatomical sites were the carotid bulb, common carotid artery, common carotid artery bifurcation, internal carotid artery, and external carotid artery in 7.8%, 5.2%, 2.0%, 2.6%, and 1.3% of patients, respectively. Right-sided stenosis was observed in 9.8% of cases, surpassing left-sided stenosis at 7.2%. Logistic regression analysis did not identify age and gender as significant predictors of stenosis.

Conclusion

This study underscores the critical significance of early detection and intervention for carotid artery stenosis in high-risk acute ischemic stroke patients, aiming at stroke prevention.

Keywords

Stenosis, Doppler ultrasound, atherosclerosis, computed tomography scan.

Sensitivity and Specificity Assessment of Histopathology and GeneXpert in Diagnosing Extrapulmonary Tuberculosis at Gulab Devi Hospital, Lahore, Pakistan: A Retrospective Study

Published in
Pakistan Journal of Health
Sciences, 2024

Journal Category
Y

Authors

¹Rameesha Mohsin, ¹Maratab Ali,
¹Mahwish Siddique, ²Mohsin Zaheer,
¹Atiqa Ambreen, ¹Hamail Khanum

Author Institute Details

¹Gulab Devi Hospital, Lahore,
Pakistan
²Lahore General Hospital, Pakistan

Objective

To assess the sensitivity and specificity of Gene Xpert and histopathology in diagnosing EPTB at Gulab Devi Chest Hospital, Lahore, Pakistan.

Methodology

Data from patients diagnosed with EPTB between May 15th and October 15th, 2024, were analyzed. Gene Xpert and histopathology results were compared with Culture as the gold standard.

Results

The study included 299 individuals, 61.2% of whom were females and 38.8% of whom were males. Gene Xpert demonstrated a sensitivity of 90.48% and specificity of 59.75%, while histopathology exhibited a sensitivity of 88.89% and specificity of 60.17%.

Conclusion

Gene Xpert and histopathology were valuable tools for diagnosing EPTB, complementing traditional methods.

Keywords

Extrapulmonary Tuberculosis, Spinal Tuberculosis, Gene Xpert, Sensitivity, Specificity.

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Comparing the Clinical Effectiveness of High-Dose and Low-Dose Statin Therapy in Patients with Atherosclerotic Coronary Artery Disease (CAD)

Published in
Pakistan Journal of Health
Sciences. 2024

Journal Category
Y

Authors

¹Adnan Ghafoor, ²Tanzil Ur Rehman,
³Maria Sarfaraz, ⁴Aslam Rind

Author Institute Details

^{1,2}Fauji Foundation Hospital,
Rawalpindi, Pakistan
³Rawal Institute of Health Sciences,
Rawalpindi, Pakistan
⁴Liaquat University of Medical
and Health Sciences, Jamshoro,
Pakistan

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Objective

To compare the mean changes in low-density lipoprotein cholesterol with high and low doses of statin therapy.

Methods

A non-randomized controlled trial at the Department of Cardiology, Fauji Foundation Hospital Rawalpindi was conducted from January 26-2023 to July 25-2023, among patients aged 45-75 years of both genders with STElevation myocardial infarction or non-ST-elevation myocardial infarction. Patients were divided into groups using a convenience sampling technique. Patients in Group A were given high-dose statin therapy atorvastatin 40mg orally daily. While Group B received low-dose statin therapy atorvastatin 20mg orally daily. The low-density lipoprotein cholesterol level was repeated after 3 months. Data were entered and analyzed using SPSS version 23.

Results

The mean age of Group A was 56.14 ± 8.9 years and Group B was 57.5 ± 9.7 years, as per gender distribution group A showed 57.1% and Group B 68.6%, whereas, the females in Group A, were calculated as 42.9% and in Group B 31.4%. The mean changes observed in low-density lipoprotein cholesterol were significantly higher in groups in comparison to the group with lowdose statin therapy. The changes observed were significant at $35 \pm 27.8\text{mg/dl}$ in higher statin therapy versus $21.4 \pm 20\text{ mg/dl}$ with a p-value of

0.024.

Conclusion

It was concluded that highdose statin causes a greater reduction in low-density lipoprotein cholesterol levels. The highdose therapy could be a great option in treating the low-density lipoprotein in initial management.

Keywords

High Dose, Statin Therapy, Low-Density Lipoprotein Cholesterol, Artery Diseases

Assessment of the Proximal Femoral Nailing and Dynamic Hip Screws in Intertrochanteric Fractures

Published in
Pakistan Journal of Health
Sciences, 2024

Journal Category
Y

Authors

¹Muhammad Rizwan Ali, ²Irfan Ahmad, ³Nauman Naeem Ahmed, ⁴Muhammad Farhan Shahzad, ⁵Yasir Umer

Author Institute Details

¹⁻⁴Jinnah Hospital, Allama Iqbal Medical College, Lahore, Pakistan
⁵Ali Medical Centre, Islamabad, Pakistan

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Objective

To assess the differences in hospital stay, blood loss, and operative time between proximal femoral nailing and dynamic hip screws in the management of intertrochanteric fractures of the femur.

Methodology

Quasi-experimental study was conducted in Unit II of the Orthopedic Surgery department at Jinnah Hospital Lahore. It included eighty patients whose demographic profiles (name, age, gender, and BMI) were collected. Using a non-probability consecutive sampling technique, patients were divided into two groups: Group A underwent Dynamic Hip Screw (DHS) surgery, while Group B received Proximal Femoral Nailing (PFN) surgery. Data on operative time, blood loss, and hospital stay were analyzed using SPSS version 21.0, with outcomes compared via independent sample t-test at $p < 0.05$ significance.

Results

Regarding hospital stay, blood loss, and operating time, DHS and PFN differed significantly. . Compared to the DHS group, the PFN group's operating time, blood loss, and length of hospital stay were much lower.

Conclusion

This study has demonstrated that PFN is a far superior option to DHS for treating femur intertrochanteric fractures. Going forward, suggested PFN rather than DHS for femur fractures of this kind.

Keywords

Intertrochanteric Fracture, Proximal Femoral Nailing, Dynamic Hip Screw, Femur Fracture Management, Orthopedic Surgery

Lipid profile alterations in Young Adults using Smokeless Tobacco: A prospective observational study from an urban center in Pakistan

Published in

International Journal of Endorsing Health Science Research. 2024

Journal Category

Y

Authors

¹Farhan Haleem, ²Faisal Tahir, ³Syed Ali Jafri, ⁴M. Faizan Adil, ⁵Basit Mahesar, ⁶Sabir Ali, ⁷M. Ali Khan

Author Institute Details

^{1,7}Sindh Government Hospital Liaquatabad, Karachi, Pakistan
²⁻⁴United Medical & Dental College, Karachi, Pakistan
^{5,6}Jinnah Post Graduate Medical Centre, Karachi-Pakistan

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Background

Smokeless tobacco (ST) use is a prevalent health concern in South Asia, with increasing consumption among young adults. While the association between smoking and cardiovascular diseases (CVDs) is well-documented, the impact of ST on lipid profiles and related cardiovascular risks remains underexplored. This study aims to assess the lipid parameters in young adult ST users to evaluate potential dyslipidemia and its implications for cardiovascular health.

Methodology

This prospective observational study was conducted at Sindh Government Hospital Liaquatabad from November 2021 to April 2022. A total of 100 participants aged 18-30 years, who self-reported regular use of ST for at least 12 months and were non-smokers, were included. Lipid profiles, including total cholesterol, triglycerides, high-density lipoprotein cholesterol (HDL-C), and low-density lipoprotein cholesterol (LDL-C), were measured after an overnight fast. Patients on lipid-altering medications or with significant comorbidities were excluded. Statistical analysis was performed using SPSS version 22.0.

Results

The cohort predominantly consisted of young men (87%), with a mean age of 21.72 ± 3.66 years. Most participants were students (57%) and from low socioeconomic backgrounds (89%). Overall, lipid levels were generally within normal ranges, with the exception of low levels of HDL-C, which were particularly

pronounced in women. In detail, the mean HDL-C for men was 41.55 ± 6.94 mg/dL, whereas women exhibited significantly lower HDL-C levels at 30.09 ± 5.94 mg/dL ($p < 0.01$). Other lipid parameters, including LDL-C, total cholesterol, and triglycerides, did not show significant elevations. Specifically, the mean LDL-C was 147.16 ± 3.60 mg/dL for men and 136.36 ± 9.96 mg/dL for women ($p < 0.01$), while total cholesterol levels averaged 125.70 ± 23.81 mg/dL for men and 124.55 ± 27.52 mg/dL for women ($p = 0.882$). Triglycerides were comparable between genders, with men at 131.21 ± 17.14 mg/dL and women at 131.91 ± 20.70 mg/dL ($p = 0.902$).

Conclusion

This study found that while overall lipid levels were normal, female participants exhibited significantly low levels of HDL-C, indicating potential gender-specific cardiovascular risks.

Keywords

Smokeless Tobacco, Lipid Profile, Young Adults, Cardiovascular Risk, Dyslipidemia.

Prevalence of Vitamin D Deficiency in Patients with Autoimmune Thyroid Disorders at Tertiary Care Hospital, Karachi

Published in

Journal of Islamabad Medical & Dental College. 2024

Journal Category

Y

Authors

¹Rajesh Jamna Dass, ²Zareen Kiran, ³Akhtar Ali Baloch, ⁴Wajid Ali Shaikh

Author Institute Details

¹National Institute of Diabetes & Endocrinology, Dow University of Health Sciences, Ojha Campus, Karachi, Pakistan

⁴Jinnah Postgraduate Medical Centre, Karachi, Pakistan

Objective

This study aimed to ascertain the magnitude of vitamin D deficiency in those with autoimmune thyroid disorders (AITDs).

Methodology

A cross-sectional study was conducted at the National Institute of Diabetes and Endocrinology, Dow University of Health Sciences, Ojha Campus, Karachi, Pakistan from February 2024 to June 2024. Patients who attended the outpatient department and were diagnosed with AITDs, such as autoimmune hypothyroidism and Grave's disease, based on positive anti-thyroid antibodies were included in the study. The 25-hydroxy vitamin D levels in these patients were then measured.

Results

The study had 60 participants, with a mean age of 35.23 ± 9.934 years. The majority of participants had low vitamin D levels (28.3% had insufficient and 48.3% had deficient levels). Additionally, it was discovered that vitamin D status and AITDs were related, where a majority of individuals had low vitamin D levels (P-value = 0.014). Further, it was revealed that anti-TPO antibodies followed by the presence of anti-TG antibodies were more indicative of low vitamin D levels.

Conclusion

The individuals with AITDs, specifically hypothyroidism had a noticeably higher prevalence of vitamin D deficiency followed by insufficiency.

Keywords

Prevalence, vitamin D deficiency, autoimmune, thyroid disorder, Karachi.

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Efficacy and safety profile of 2nd line Anti TB drugs in DRTB patients in a tertiary care hospital of South Punjab

Published in
Pakistan Journal of Medical
Sciences. 2024

Impact Factor
1.2

Journal Category
W

Authors
Hafiz Muhammad Rizwan, Moazzam
Ali Atif, Mazhar Hussain, Rimsha
Nazeer

Author Institute Details
Sheikh Zayed Medical College/
Hospital, Rahim Yar Khan, Pakistan

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Objective

The objective of the study was to assess the efficacy and safety profile of 2nd line Anti TB drugs in DR TB patients in a tertiary care hospital of South Punjab.

Methodology

This retrospective cohort study included patients who received therapy for multidrug-resistant tuberculosis (MDR-TB) between March 2018 and June 2021 at the Pulmonology Department of Sheikh Zayed Hospital, Rahim Yar Khan. Sociodemographic data, TB treatment history, treatment schemes, safety profiles, weight measures, and sputum smear results were obtained from medical records. Outcome variables of interest included body weight, sputum smear grading for treatment efficacy, and ADRs for safety assessment.

Results

The study showed a progressive decline in positive sputum smear results over the 24-month treatment for MDR-TB, with an increase in negative smear results from 33 (9.50%) at baseline to 97 (28.0%) by Month 24. Furthermore, the mean body weight significantly increased every three months throughout the trial. Beginning at 43.83 kg at baseline, the mean weight increased to 50.02 kg by the end of 24 months. ADRs were mostly mild to moderate, including depression (18.4%), arthralgia (17.1%), anxiety (16.5%), and Qtc prolongation (11.0%). The treatment adhered to international guidelines, using a tailored combination of second-line drugs and adjusting regimens based on drug resistance patterns from sputum culture and DST.

Conclusion

The study findings suggest the efficacy of second-line anti-TB drug regimens in achieving sputum smear conversion and positive treatment outcomes in patients with MDR-TB. However, the occurrence of ADRs highlights the need for careful monitoring and management during treatment.

Keywords

Tuberculosis, Multidrug-Resistant Tuberculosis, Weight Alterations, Sputum Smear Grading, Adverse Drug Reaction.

Vitamin D status of patients visiting a private endocrinology clinic: a retrospective analysis from Karachi, Pakistan

Published in
Journal of Pakistan Medical
Association. 2024

Impact Factor
0.9

Journal Category
W

Authors
Tasnim Ahsan, Saima Ghaus, Erum
Sohail, Wasfa Aijaz, Uzma Erum,
Samar Abbas Jaffri

Author Institute Details
Medicell Institute of Diabetes,
Endocrinology and Metabolism
(MIDEM), OMI Hospital, Karachi,
Pakistan.

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Objective

To estimate the burden of vitamin D deficiency and its association with chronic diseases in patients visiting a private endocrinology clinic in an urban setting.

Methodology

The retrospective study was conducted at the Medicell Institute of Diabetes Endocrinology & Metabolism, Karachi, and comprised medical records of adult patients of either gender between January 2000 and December 2019. Vitamin D status of the patients and its association with various chronic disorders were investigated. Data was analyzed using SPSS 21.

Results

Of the 2,854 patients with mean age 40.87 ± 15.1 years, 2,302 (80.7%) were females, and 552 (19.3%) were males. There were 1055 (37%) patients with vitamin D deficiency, 1,040 (36.7%) with severe deficiency, 462 (16.2%) with insufficiency, 295 (10.3%) with normal status, and 2 (0.1%) with vitamin D toxicity. Vitamin D deficiency was observed more frequently in those aged <40 years, and the deficiency was significantly related to type 2 diabetes, impaired glucose tolerance, dyslipidemia and autoimmune disorders ($P < 0.05$).

Conclusion

The burden of vitamin Deficiency was found to be alarmingly high at a private endocrine and medicine clinic serving a middle and upper socioeconomic class population in an urban setting.

Keywords

Vitamin D deficiency, metabolic disorder, Diabetes mellitus, Hypertension.

Medical Journalism and Role of Accreditation in Enhancing Quality of Medical Journals in Pakistan

Published in

Journal of Islamabad Medical And Dental College. 2024

Journal Category

Y

Authors

Usman Waheed & Khalid Hassan

Author Institute Details

Managing Editor & Editor-in-Chief,
Journal of Islamabad Medical and
Dental College, Islamabad, Pakistan

Summary

Medical journalism is integral to the dissemination of research findings, public health awareness, and the credibility of scientific publications. This study examines the historical evolution of medical journalism in Pakistan and highlights the role of accreditation in maintaining publication quality. To address challenges in journal accreditation, the Islamabad Medical and Dental College (IMDC), in collaboration with the Pakistan Medical and Dental Council (PMDC), organized a seminar titled "The Role of Accreditation in Enhancing Quality of Medical Journals." The seminar featured esteemed speakers who provided insights into accreditation frameworks, ethical publishing, and peer-review best practices. Prof. Dr. Rizwan Taj (President, PMDC) emphasized the importance of rigorous research and accreditation in fostering evidence-based medical practice. Mr. Shaukat Ali Jawaid (Chief Editor, Pakistan Journal of Medical Sciences) outlined PMDC's journal evaluation criteria and highlighted the necessity of ethical publishing standards. Prof. Dr. Akhtar Sherin (Chief Editor, Khyber Medical University Journal) elaborated on the accreditation process for international databases like Scopus and Web of Science, stressing their role in enhancing journal credibility. Prof. Dr. Saira Afzal (Editor-in-Chief, Annals of King Edward Medical University) discussed best practices for peer reviews, focusing on transparency, ethical considerations, and reviewer training. Prof. Dr. S. H. Waqar (President, Pakistan Association of Medical Editors) highlighted the essential skills for

medical writing, emphasizing clarity, scientific accuracy, and adherence to global publication standards. Prof. Dr. Khalid Hassan (Editor-in-Chief, Journal of Islamabad Medical and Dental College) addressed the challenges faced by Pakistani medical journals, including indexing issues, funding constraints, and predatory publications. Mr. Ali Nasir (Manager, Research Services, Getz Pharma) showcased clinical research support initiatives of Getz Pharma for Health Care Professionals.

The seminar concluded with recommendations for regulatory reforms, capacity-building initiatives, and international collaborations to elevate the standards of medical journalism in Pakistan. Strengthening accreditation frameworks can improve journal visibility, credibility, and impact, enabling Pakistani research to contribute meaningfully to the global medical community.

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Assessing the Vitamin-D (Calciferol) Supplementation Impact on Glycemic Levels among Patients with Type-2 Diabetes (DM-2); A Quasi-Experimental Trial

Published in

Journal of Islamabad Medical & Dental College. 2024

Journal Category

Y

Authors

¹Adnan Ghafoor, ²Maria Sarfraz,
¹Maria Kalsoom, ³Sadaf Noureen,
¹Hareem Fatima, ¹Syed Kumail
Hassan Kazmi

Author Institute Details

¹Fauji Foundation Hospital,
Rawalpindi, Pakistan
²Rawal Institute of Health Sciences,
Rawalpindi, Pakistan
³The Groves Medical Centre, New
Maiden, United Kingdom

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Objective

To determine the effect of Vitamin D (calciferol) on the control of blood glucose in patients with insufficient controlled DM-2.

Methodology

A Quasi-Experimental trial at the Department of Medicine, Fauji Foundation Hospital, Rawalpindi for 06 months was conducted after, meeting inclusion and exclusion criteria. 115 patients were enrolled and the effect of calciferol on levels of blood glucose was assessed by measuring HbA1c levels, and pre- & post calciferol supplementation.

Results

Of the 2,854 patients with mean age 40.87 ± 15.1 years, 2,302 (80.7%) were females, and 552 (19.3%) were males. There were 1055 (37%) patients with vitamin D deficiency, 1,040 (36.7%) with severe deficiency, 462 (16.2%) with insufficiency, 295 (10.3%) with normal status, and 2 (0.1%) with vitamin D toxicity. Vitamin D deficiency was observed more frequently in those aged <40 years, and the deficiency was significantly related to type 2 diabetes, impaired glucose tolerance, dyslipidemia and autoimmune disorders ($P < 0.05$)

Conclusion

The effect of calciferol on glycemic

control (measured in terms of mean reduction of ≥ 1 in HbA1c) in calciferol-deficient and insufficient diabetics was insignificant. Therefore, vitamin D supplementation appears to have no effect on blood glucose control in diabetes individuals who have low levels of calciferol—both inadequate and deficient—both of which are low.

Keywords

Calciferol (Vitamin-D), Levels of blood sugar, Poorly Controlled Type-2 Diabetes.

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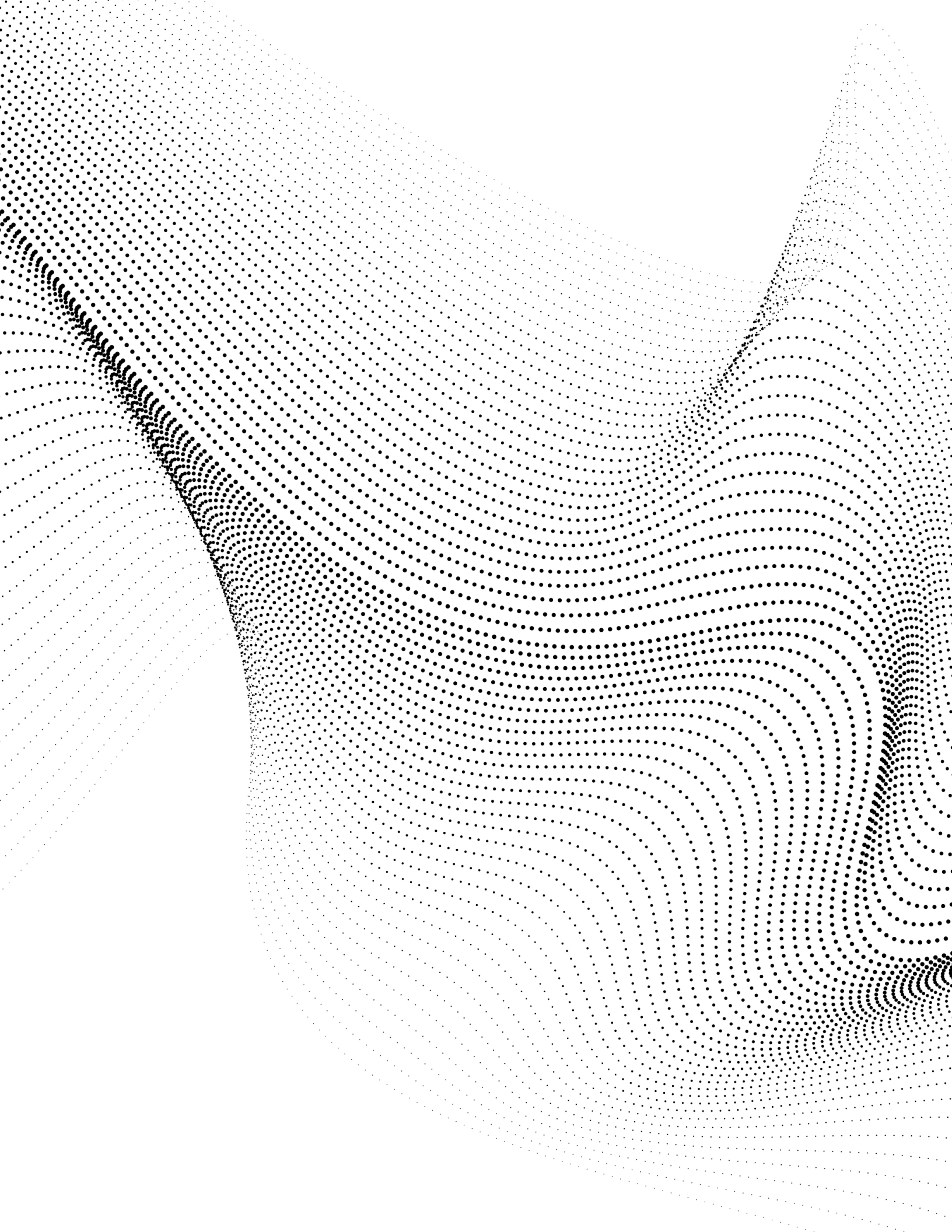


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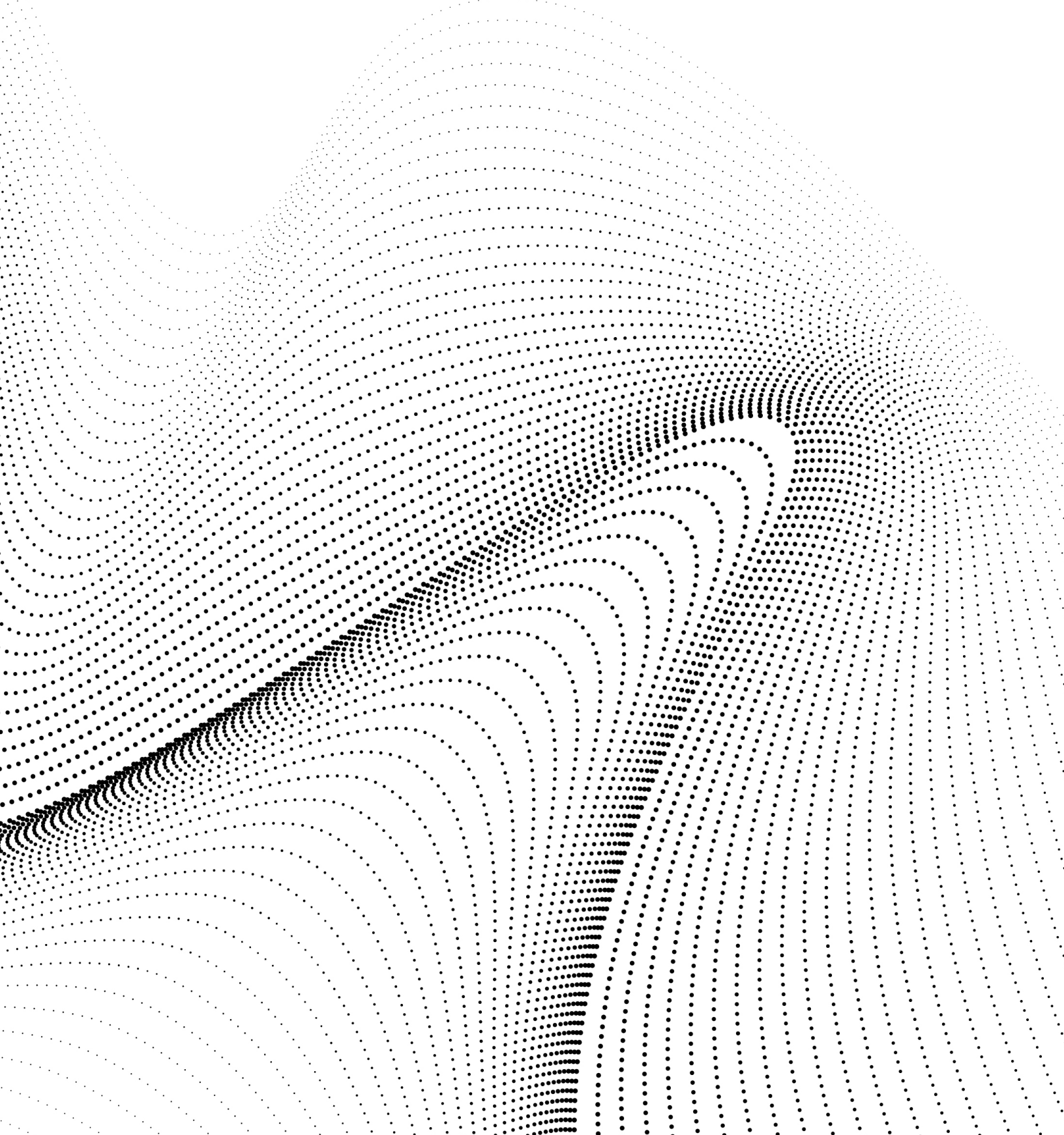


Volume III
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The Vault 190





2024 Posters



Adherence to Quadruple therapy for Heart Failure. A Single-center experience in Lower Middle Income Country

Presented in

European Society of cardiology conference. 2024.

Authors

¹A. Khan, ¹MA. Khan, ¹A. Ullah, ¹Q. Aleem, ¹S. Zeb, ¹Z. Afzal, ¹H. Zeb, ²B. Hanif, ³MN. Tahir

Author Institute Details

¹Peshawar Institute of Cardiology, Peshawar, Pakistan

²Tabba Heart institute, Karachi, Pakistan

³Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology, Pakistan

Purpose

1. To evaluate the compliance of a single center in a lower middle-income country with Quadruple Therapy for admitted HF patients, both during their hospital stay and upon discharge. 2. To compare the compliance of heart failure quadruple therapy from this single center in lower middle-income country to contemporary practices.

Methodology

This study investigates the compliance of a single center in a lower-middle-income country with Quadruple Therapy for admitted heart failure (HF) patients. Relevant patient data, encompassing demographic information, medical history, prescribed medications, and adherence records, was extracted from hospital records. The study focused on guideline-directed medical therapy (GDMT), namely Angiotensin-converting enzyme inhibitors (ACEIS) or Angiotensin receptor blockers (ARBs), beta-blockers (BB), mineralocorticoid receptor antagonists (MRAs), angiotensin receptor/neprilysin inhibitor (ARNI) and sodium-glucose co-transporter- inhibitors (SGLT-2 inhibitors). Compliance/adherence to GDMT/quadruple therapy was assessed based on reduced ejection fraction (EF <49%) in admitted patients and the same criteria upon discharge

Results

The study revealed distinct prevalence rates for heart failure categories in admitted patients (n=550) with 70% for HFTEF. Quadruple Therapy adherence was analyzed, indicating varying compliance during hospitalization and upon discharge.

Cumulative percentages for key HF drugs during hospitalization and upon discharge were examined. Beta-blockers usage was 72.5% during hospitalization and 75.5% upon discharge. RAAS (ACE, ARB, and ARNI) usage was 70.3% in admission & 83% upon discharge. SGLT2 Inhibitors usage was 69.7% & 78.6% in admitted patients & upon discharge respectively. Meanwhile, MRA (Mineralocorticoid Receptor Antagonist) usage was 72.7% during hospitalization and 79% upon discharge. Notably, the average utilization among admitted patients was 71.3% while it increased to 79.02% among discharged patients. These findings underscore the dynamic patterns in drug utilization throughout the treatment course, highlighting variations in prescription practices during hospitalization and post-discharge periods.

Conclusion

This study presents a comprehensive assessment of heart failure (HF) management in a single center in the rural area of Peshawar, a city in a lower-middle-income country, focusing on Quadruple Therapy adherence. The compliance to GDMT is significant with 71.3% in admitted patients & 79.02% in discharge patients, comparable to any advance center in the world. These findings provide valuable insights into the real-world application of guideline-directed medical therapy, emphasizing the need for ongoing evaluation and optimization of heart failure treatment strategies. Recognizing the unique challenges faced in such regions, the study advocates for adapting its insights worldwide to enhance HF management.

Helicobacter pylori treatment in Pakistan: data from the Pakistan Registry on H. pylori Management (Hp-PakistanReg)

Presented in

37th International Workshop on Helicobacter & Microbiota in Inflammation & Cancer. 2024.

Authors

¹Lubna Kamani, ²Anna Cano-Català, ³Pablo Parra, ⁴Leticia Moreira, ³Olga P. Nyssen, ⁵Francis Mégrauds, ⁶Colm O'Morain, ³Javier P. Gisbert

Author Institute Details

¹Liaquat National Hospital, Karachi, Pakistan;

²Althaia Xarxa Assistencial Universitària de Manresa, Institut de Recerca i Innovació en Ciències de la Vida i de la Salut de la Catalunya Central (IRIS-CC), Manresa, Spain; ³Hospital Universitario de La Princesa, Instituto de Investigación Sanitaria Princesa (IIS-Princesa), Universidad Autónoma de Madrid (UAM), and Centro de Investigación Biomédica en Red de Enfermedades Hepáticas y Digestivas (CIBERehd), Madrid, Spain;

⁴Hospital Clínic de Barcelona, Centro de Investigación Biomédica en Red en Enfermedades Hepáticas y Digestivas (CIBERehd), Institut d'Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS), University of Barcelona, Spain; ⁵INSERM U1312, Université de Bordeaux, Bordeaux, France, ⁶School of Medicine, Trinity College Dublin, Dublin, Ireland.

Introduction

In Pakistan, there are several treatment options for Helicobacter pylori (H. pylori) treatment. These include combination of various antibiotics with proton pump inhibitors.

Aim

To investigate the effectiveness of first-line empirical treatment of H. pylori in Pakistan.

Methods

- International prospective, non interventional registry evaluating the management of H. pylori (Hp-Pakistan Reg, Hp-WorldReg partner).
- Infected adults and treatment-naïve cases were registered at e-CRF AEGRedCap (2021-2023).
- Effectiveness was assessed by modified intention-to-treat (mITT) and per-protocol (PP) analyses.

Results

- Overall, 123 cases (62% male) were analysed, with 97 (79%) cases receiving 1st line empirical therapy.
- Diagnosis involved multiple tests, including serology, urea breath test, stool antigen tests, histology, rapid urease test, culture, and stool PCR, along with endoscopic confirmation as needed.
- Antibiotic resistance to clarithromycin, nitroimidazole, quinolone, amoxicillin, and tetracycline was not observed in any of the patients.
- The most frequent prescriptions duration was 10-days (70%), followed by 14-days (24%).
- Treatment regimens varied, with sequential therapy being the most

common (46%), followed by triple therapy (42%), dual (7.2%), quadruple (3.1%), and hybrid therapy (1.0%).

- The effectiveness of the most frequent schemes are represented in Figure 1.
- The treatment effectiveness decreased from 2022 to 2023 (Figure 2).
- Regarding safety and compliance, eradication treatments were well tolerated. The overall incidence of at least one adverse event (AE) was 6.2%. Regarding compliance, 96% (93/97 patients) adhered to treatment.

Conclusion

Our study sheds light on H. pylori management in Pakistan, highlighting effective strategies for treatment-naïve patients. Despite adherence and no bacterial resistance, declining efficacy underscores the need for ongoing monitoring and protocol adjustments.

Comparison of in hospital events among Heart Failure Patients admitted in CCUs and Wards at Chaudhary Pervaiz Elahi Institute of Cardiology, Wazirabad

Presented in
Cardiology Research Award. 2024.

Authors

Aamir Siddique, Abdullah Mumtaz,
Habib Cheema

Author Institute Details

Chaudhary Pervaiz Elahi Institute of
Cardiology, Wazirabad

Introduction

Heart Failure is an important cardiovascular disease due to its high prevalence, significant morbidity and high mortality rate. In Hospital Events such as Acute Kidney Injury, electrolyte Imbalance, Bleeding, Septic Shock, Ventricle Tachycardia, Ventricle Fibrillation, Cardiac arrest, Atrial Fibrillation/ Flutter, Cardiogenic Shock and Myocardial Infraction play a crucial role in Mortality and Morbidity of Heart Failure and the worsening of Heart Failure.

Objectives

The Purpose of this study is to check, calculate and compare the number of In-hospital Events which is common in Indoor admitted Heart Failure Patients, having crucial role in Heart Failure mortality, morbidity and the worsening of Heart Failure.

Methods

The data of Heart Failure Patient was collected from Cardiac Care Units and Wards of Chaudhary Pervaiz Elahi Institute of Cardiology in a time period of 15 months, excluding the Emergency and Out Patient Door. Required patient data which consist of Patient Demographics, Presenting Symptoms, Past Medical History, Lab Values, Echo Record, Etiology of Heart Failure and In hospital administered medication record and in Hospital events was collected. The data was analyzed and compared for the in Hospital events such as Acute Kidney Injury, electrolyte Imbalance, Bleeding, Septic Shock, Ventricle Tachycardia, Ventricle Fibrillation, Cardiac arrest, Atrial Fibrillation/ Flutter, Cardiogenic Shock and Myocardial Infraction.

Result

Among 606 Heart Failure patients enrolled, (n=606, Male- 63.53%, Females- 36.46%, Mean age 59.54, Min age-18 and Max age 103, NYHA IV-65.67%, NYHA III- 21.61%, NYHA II- 9.2%, NYHA I-3.46%), the electrolyte imbalance was among 104 (17.16%) Patients, Cardiogenic shock was among 102 (16.83%) patients, Myocardial Infraction was developed in 86 (14.19%) Patients, Acute Kidney Injury developed in 79 (13.03%) Patients, Bleeding issues were in 40 (6.60%) patients, Ventricle Tachycardia occur in 30 (4.95%) Patients, Cardiac arrest occur in 25 (4.12%) Patients, Atrial Fibrillation/ Flutter was among 23 (3.79%) Patients, Ventricle Fibrillation was among 2 (0.33%) Patients, Septic Shock and CVA/ Stroke/ TIA was not happened in any patient and have 0%.

Discussion

HF is associated with a diverse range of complications and in hospital events play a crucial role in Mortality and Morbidity of Heart Failure. In hospital events such as electrolyte imbalance, Cardiogenic Shock, Myocardial Infraction and Acute Kidney Injury were more prominent in Heart Failure Patients at Chaudhary Pervaiz Elahi Institute of Cardiology, Wazirabad and were 17.16%, 16.83%, 14.19% and 13.03% respectively, whereas Bleeding issue, Ventricle Tachycardia, Cardiac Arrest, Atrial Fibrillation/ Flutter, Ventricle Fibrillation, Septic Shock and CVA/Stroke/ TIA were less prominent and were 6.60%, 4.95%, 4.12%, 3.79%, 0.33% and 0% respectively.

Adherence to Guideline Directed Medical Therapy in Heart Failure Patients Admitted in Cardiac care units & Wards at Chaudhary Pervaiz Elahi Institute of Cardiology, Wazirabad

Presented in
Cardiology Research Award. 2024.

Authors

Rao Shahzad Abdul Tawwab Khan,
Abdul Moiz Khokher, Muhammad
Adnan Yousaf

Author Institute Details

Chaudhary Pervaiz Elahi Institute of
Cardiology, Wazirabad

Introduction

Heart failure is a major health issue, affects millions of individuals in Pakistan. Guideline-directed medical therapy (GDMT) comprise of four important drug classes: Sodium Glucose Cotransporter 2 Inhibitors, Mineralocorticoid Inhibitors, Beta Blockers, Renin- Angiotensin System Inhibitors, used in the treatment of Heart Failure with reduced ejection Fraction. Different major randomized controlled trials indicate that the use of GDMT in Heart Failure patients with reduced ejection fraction improves clinical outcomes. American College of Cardiology reveals that treatment with GDMT more than 2 years prevents one death for every four people. In spite of this, there is still insufficient usage of GDMT.

Objectives

The purpose of this study is to check /evaluate the compliance/ adherence to Guideline Directed Medical Therapy in Heart Failure Patients with reduced ejection fraction ($EF \leq 40$) admitted in Cardiac care units & Wards of Chaudhary Perviaz Elahi Institute of Cardiology, Wazirabad.

Methods

The data of Heart Failure Patient with reduced ejection Fraction ($EF \leq 40$) was collected from Cardiac Care Units and Wards of Chaudhary Pervaiz Elahi Institute of Cardiology, Wazirabad in a time period of 15 months, excluding the Emergency and Out Patient Door. Required patient data which consist of Patient Demographics, Presenting Symptoms, Past Medical History, Lab Values, Echo Record, Etiology of Heart Failure and In hospital administered medication record was collected. The data was analyzed for the compliance to Guideline-Directed Medical Therapy (GDMT) which consist of Sodium Glucose Cotransporter 2 Inhibitors, Mineralocorticoid Inhibitors, Beta Blockers, Angiotensin Receptors Blockers/ Angiotensin Receptor - Neprilysin Inhibitors / Angiotensin Converting Enzymes (ACE) Inhibitors.

Results

Among 487 Heart Failure patients enrolled ($n=487$) (Male= 66.94%), (Females= 33.12%) (Mean age 59.62), 247 (50.71%) Patients were given Beta Blockers. Angiotensin Receptor - Neprilysin Inhibitors / Angiotensin Receptors Blockers / Angiotensin Converting Enzymes Inhibitors were given to 208 (42.71%) Patients. Angiotensin Receptor - Neprilysin Inhibitors were given to 22 (4.51%) Patients. Angiotensin Converting Enzymes Inhibitors were given to 159 (32.64%) Patients. Angiotensin Receptors Blockers were given to 27 (5.54%) patients. Sodium Glucose Co Transporter Inhibitors were given to 222 (45.58%) patients. Mineralocorticoid Receptor Antagonist were given to 245 (50.30%) Patients. The Total Compliance to GDMT is found to be 47.32%.

Discussion

The Total Compliance to Guideline-directed medical therapy at Chaudhary Pervaiz Elahi Institute of Cardiology, among Cardiac Care Units and Ward admitted Heart Failure Patient with reduced ejection fraction is found to be 47.32%. Despite multiple benefits, there is still underutilization of GDMT at Chaudhary Pervaiz Elahi Institute of Cardiology, due to lack of awareness of how to safely and effectively initiate and titrate these medications, limited use of Mineralocorticoid Receptor Antagonist (MRAS) in Patients with Renal Impairment/ Chronic Kidney Disease/Acute Kidney Injury. Unavailability of Angiotensin Receptor -Neprilysin Inhibitors (ARNI) in Hospital and Poor trend of Cardiologist towards ARNIs, despite multiple benefits.

Conclusion

The Total Compliance to Guideline-directed medical therapy at Chaudhary Pervaiz Elahi Institute of Cardiology, among Cardiac Care Units and Ward admitted Heart Failure Patient with reduced ejection fraction is found to be 47.32%. Despite multiple benefits, there is still underutilization of GDMT at Wazirabad Institute of Cardiology due to many reasons.

PREACH Implementation Project: A Socio-Ecological Framework for Hypertension in Pakistan

Presented in
International Society of
Hypertension conference. 2024.

Authors

¹Dr. Mohammad Ishaq, ²Dr. Wajiha Javed, ²Dr. Hussain Baqar Abidi, ²Samra Maqbool, ²Osama Ahmed, ²Yasmeen Fatima

Author Institute Details

¹Medicare Cardiac and General Hospital
²Getz Pharma Private Limited

Background

Worldwide hypertension prevalence is projected to reach 1.56 billion by 2025, affecting 29% of the global population according to the WHO. It contributes to 7.5 million deaths, 3.7% of total disability-adjusted life years (DALYs), and is responsible for causing stroke in 54% of hypertensives. Pakistan has a prevalence of 43% hypertension with merely 12.5% of controlled hypertensives. There is a pressing need for a national level intervention through uniform clinical approaches for optimum hypertension prevention, treatment and control. Through PREACH project, we prioritize primary care physicians as first-line responders and are training them on standardized hypertension guidelines to alleviate the burden from tertiary care hospitals. To detect new onset hypertension the project also incorporates early surveillance and community level screenings.

Objectives

- To build the capacity of practitioners on standardized guidelines endorsed by the health ministry, PCS (Pakistan Cardiac Society) & PHL (Pakistan Hypertension League)
- To raise community awareness, to screen and develop self-referral pathways to specialty care
- To develop a robust national hypertension registry
- To include hypertension in essential primary healthcare packages

Methods

A national hypertension management plan includes developing guidelines and training over 14,000 GPs. Community awareness

campaigns will direct self-referrals to accredited GPs, and a national hypertension registry will centralize data collection. Advocacy will focus on engaging the Ministry of Health and multi-sectoral partners to prioritize hypertension management in annual development programs.

Results & Conclusion

We aim to create an impact in the lives of 4.3 million beneficiaries (anti-hypertensive naïve hypertensive patients of Pakistan) by increasing self-referral of hypertensive cases to specialists through PREACH implementation project at all healthcare service delivery levels.

Keywords

Hypertension, guidelines, training, registry, community.

Abbreviations

PREACH= PREvention, mAnagement and Control of Hypertension, GP= General Practitioner, HCP= Health Care Professional, HMIS= Health Management Information System, ADP= Annual Development Plan, BP= Blood Pressure, WHO= World Health Organization

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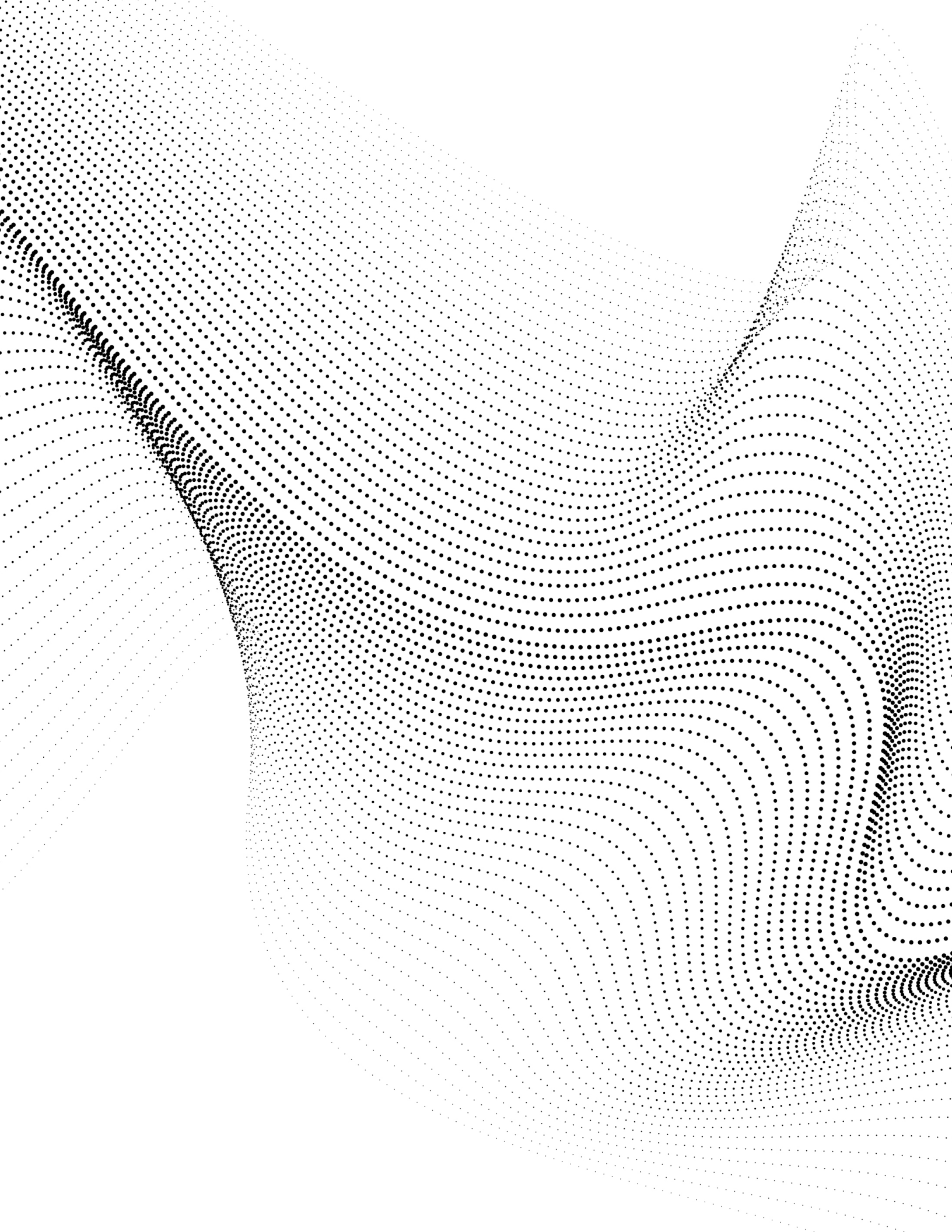


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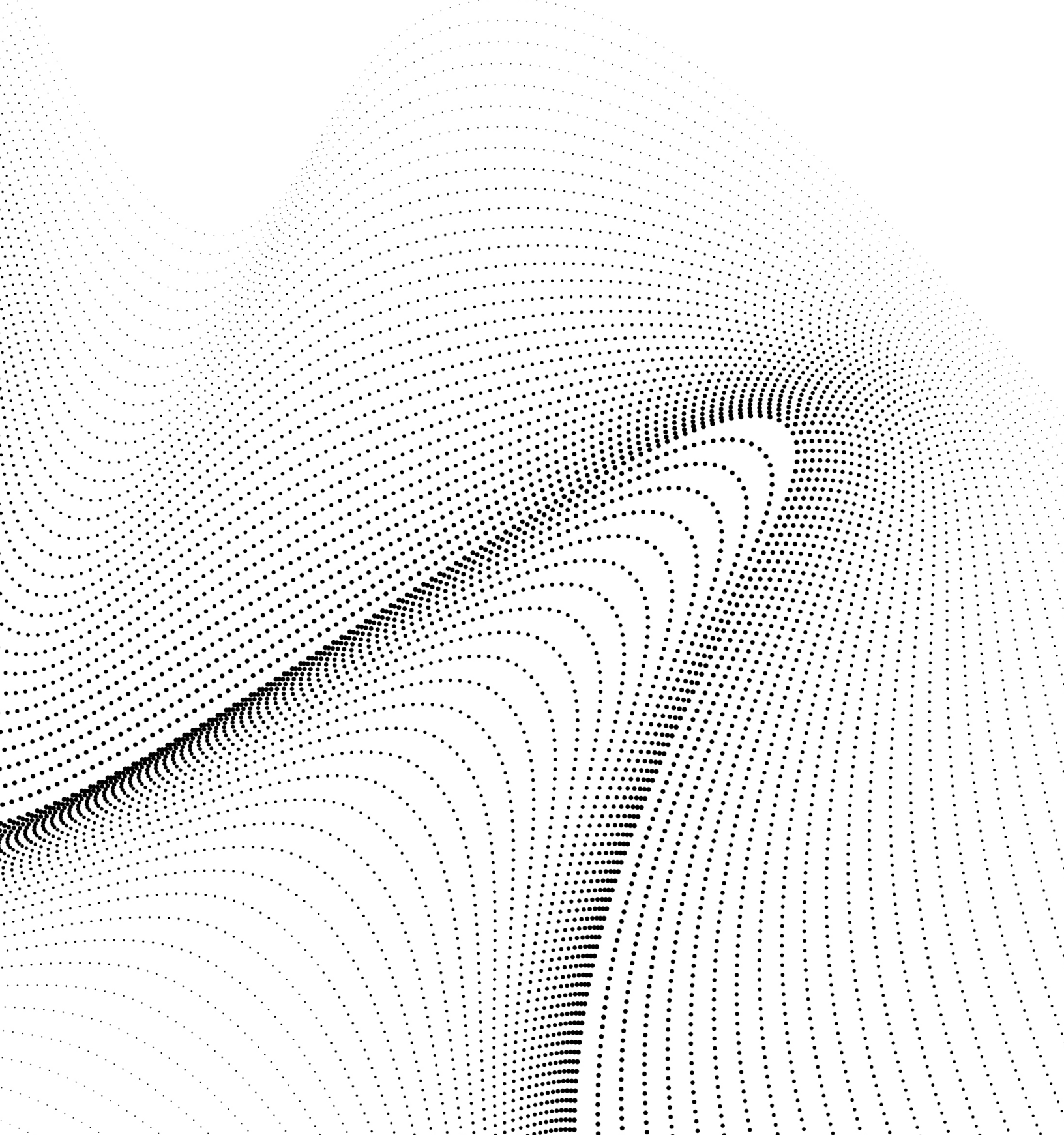
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Getz Pharma is the first and only pharmaceutical company in Pakistan whose manufacturing facility is pre-qualified by the World Health Organization (WHO), Geneva, and approved by member countries of the Pharmaceutical Inspection Co-operation Scheme (PIC/S) and Eurasian Economic Union (EAEU).



2024 Abstracts



Assessing the risk factors and complications related to Metabolic Syndrome in Diabetic Patients: A Retrospective Analysis from Metabesity Management Clinics.

Accepted in
IDF 2025, ATTD ASIA 2025

Authors

¹Mujtaba Hasan, ²Sadia Salman,
³S. Abbas Raza, ⁴Fawad Ahmad
Randhawa, ⁵Adnan Ghafoor,
⁶Jahanzeb Kamal, ⁷Arslan Shabbir,
⁸Muhammad Nabeed Tahir, ⁹Ali
Nasir

Author Institute Details

¹Akhtar Saeed medical college,
Lahore, Pakistan

²Jinnah Hospital Lahore, Allama
Iqbal medical college, Lahore,
Pakistan

³Shaukat Khanum Memorial Cancer
Hospital and Research Center,
Lahore, Pakistan

⁴King Edward Medical University,
Lahore, Pakistan

⁵Department of Medicine, Fauji
Foundation Hospital, Rawalpindi,
Pakistan

⁶College of Physicians and Surgeons
Pakistan, Karachi, Pakistan

⁷University of Lahore, Lahore,
Pakistan

⁸Shaheed Zulfiqar Ali Bhutto
institute of science and technology,
Karachi, Pakistan

⁹Ziauddin University, Karachi,
Pakistan

Background

Type 2 Diabetes Mellitus (T2DM) is closely linked to metabolic disorders like hypertension and microvascular complications such as peripheral neuropathy. Comprehensive management, as promoted in the Metabesity framework, addresses not only glycemic control but also cardiovascular, mental health, and liver disease risks.

Objective

This study aimed to assess the data on Type 2 Diabetes Mellitus (T2DM) presented at the Metabesity Management Clinics.

Methods

A retrospective cross-sectional study was conducted at two tertiary care centers over two years, including type 2 diabetic patients aged 18 and above. Patients with specific conditions or critical illnesses were excluded. Data, encompassing medical history, demographics, and various clinical measurements, were collected from medical records using Healthwire software.

Results & Conclusions

The study provides a comprehensive overview of the sociodemographic and clinical characteristics of T2DM patients, highlighting key findings across various health domains. Participants had an average age of 49.8 years, with a balanced gender distribution. The majority were employed (52%) and non-smokers (79.8%), with a significant proportion being married (97.9%). Neurological evaluations indicated

moderate sensory perception variability in both feet. Depression levels, assessed through the PHQ, showed that 33.2% experienced mild depression, with only a small fraction reporting moderate or severe levels. Fibrosis risk, measured by FIB-4 and NFS scores, identified a minority with advanced fibrosis. Metabolic Syndrome risk factors included hypertension (53.3%), and complications such as Diabetic Peripheral Neuropathy were prevalent (40.0%). Correlation analysis revealed significant relationships between metabolic parameters, with positive correlations found between cholesterol, LDL, and triglycerides, and inverse relationships with HDL. Liver function markers showed associations with metabolic factors, while Doppler Foot Assessment parameters highlighted the link between metabolic and vascular health, underscoring the interconnectedness of these factors in T2DM patients. Our study finds the hypertension as the most common risk factors for MetS among type 2 diabetes and peripheral neuropathy as the most common microvascular consequence, addressing mental health and assessing liver disease risk is important for holistic management of T2DM as described in metabesity framework.

Evaluating the Efficacy and Safety of Ertugliflozin and Sitagliptin Combination Therapy (Trevia-R2®) in Patients with Type 2 Diabetes Mellitus: CEASE Diabetes Study

Accepted in
IDF 2025, ATTD ASIA 2025

Authors

¹Asima Khan, ²Muhammad Adnan Kanpurwala, ³Riasat Ali Khan, ⁴V.M.Lohano, ⁵Shakeel Ahmed, ⁶Shahid Akhter, ⁷Najum Feroz Mahmudi, ⁸Majid Khan, ⁹Tahir Rasool, ¹⁰Ahmed Shahzad, ¹¹Shehzad Tahir, ¹²Farasat Ali, ¹³Muhammad Irfan Shaikat, ¹⁴Magsood Mehmood, ¹⁵Tahir Chaudhry, ¹⁶Jahanzeb Kamal, ¹⁷Muhammad Nabeed Tahir

Author Institute Details

¹Sindh government Hospital, Liaquatabad, Karachi, Pakistan
²Karachi Institute of Medical Sciences, Karachi, Pakistan
³Dr. Riasat Medical Centre, Allah Wala Town, Karachi, Pakistan
⁴Doctors Plaza, Clifton, Karachi, Pakistan
⁵Diabetes specialist, Ahmed Medical Complex, Karachi, Pakistan
⁶Shahid Medical Centre, Karachi, Pakistan
⁷Najum Clinic, Karachi, Pakistan
⁸Fidai Consulting Clinic and Surgery Centre, Karachi, Pakistan
⁹Akhuwat Health Services Diabetes Centre, Lahore, Pakistan
¹⁰Al Raheem Family hospital, Faisalabad, Pakistan
¹¹Shams Medical & Diabetes Care Centre, Rawalpindi, Pakistan
¹²Mansehra Endocrine & Diabetes Care, Mansehra, Pakistan
¹³Mian Fazal-ur-Rehman hospital, Multan, Pakistan
¹⁴Majeed Medical Complex, Gujranwala, Pakistan
¹⁵Family Care Diabetes Centre, Lahore, Pakistan
¹⁶Medical Education, College of Physicians and Surgeons Pakistan, Karachi, Pakistan
¹⁷Shaheed Zulfiqar Ali Bhutto institute of science and technology Department of public health

Background

Diabetes Mellitus (DM) is a global health crisis with an increasing prevalence and associated complications. In Pakistan, the burden of DM is escalating rapidly. Combining Sodium-Glucose Cotransporter 2 (SGLT-2) and Dipeptidyl Peptidase 4 (DPP-4) inhibitors has emerged as a promising therapeutic approach for type 2 DM (T2DM).

Objective

To evaluate the effectiveness and safety of Ertugliflozin and Sitagliptin combination therapy (Trevia-R2®) in improving glycemic control, reducing blood pressure, and promoting weight loss in Pakistani patients with Type 2 Diabetes Mellitus (T2DM).

Methods

This open-label, prospective, observational, single-arm, multi-center, post-marketing study evaluated the efficacy and safety of Ertugliflozin + Sitagliptin (Trevia-R2®) at doses of 5mg+100mg or 15mg+100mg over 24 weeks. 326 patients were treated and subsequently followed up across 20 sites in Pakistan. Primary endpoints included changes in Glycated Hemoglobin (HbA1c), fasting blood sugar (FBS), random blood sugar (RBS), blood pressure, and body weight. Safety and tolerability were assessed through adverse event monitoring. Additionally, loss to follow-up and treatment discontinuation were documented. Follow-up assessments were conducted at specific time points, including the 1st follow-up (4 to 6 weeks after therapy initiation), the 2nd follow-up (12 weeks after therapy initiation), and

the 3rd follow-up (24 weeks after therapy initiation).

Results & Conclusions

Within-group comparisons using the Wilcoxon Signed Rank Test showed significant improvements in weight, systolic blood pressure (SBP), diastolic blood pressure (DBP), HbA1c, fasting blood sugar (FBS), and random blood sugar (RBS) from baseline to the last follow-up across all dose groups ($p < 0.05$). Specifically, in the 15 mg+100 mg group, weight decreased from 73.5 to 70.8, SBP from 130 to 120, HbA1c from 8.55 to 7.1, FBS from 148.5 to 111, and RBS from 168.5 to 148. In the between-group comparisons, the Kruskal-Wallis test revealed significant differences between groups for SBP ($p < 0.001$) and FBS ($p = 0.034$), while weight, DBP, HbA1c, and RBS showed no significant differences. Post-hoc Mann-Whitney U tests confirmed significant differences in SBP between Group 1 vs Group 3 and Group 2 vs Group 3 ($p < 0.05$), while FBS differences were significant between Group 1 vs Group 2 and Group 2 vs Group 3 ($p < 0.05$). The combination therapy of Ertugliflozin + Sitagliptin (Trevia-R2®) exhibited efficacy in improving glycemic control, lowering blood pressure, and inducing weight loss among Pakistani T2DM patients over a 24-week. Moreover, the treatment demonstrated favorable tolerability, suggesting its potential as a viable option for managing T2DM in this population.

Real World Safety & Efficacy Experience of Empagliflozin (Diampa®) & Empagliflozin Plus Metformin (Diampa-M®) in Type II Diabetes Mellitus: A Multinational, Multi-centric, Post Marketing Surveillance Investigation

Accepted in
IDF 2025, ATTD ASIA 2025

Authors

¹Asima Khan, ²Muhammad Adnan Kanpurwala, ³Riasat Ali Khan, ⁴V.M.Lohano, ⁵Shakeel Ahmed, ⁶Shahid Akhter, ⁷Najum Feroz Mahmudi, ⁸Majid Khan, ⁹Tahir Rasool, ¹⁰Ahmed Shahzad, ¹¹Shehzad Tahir, ¹²Farasat Ali, ¹³Muhammad Irfan Shaukat, ¹⁴Maqsood Mehmood, ¹⁵Tahir Chaudhry, ¹⁶Jahanzeb Kamal, ¹⁷Muhammad Nabeed Tahir

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¹Sindh government Hospital, Liaquatabad, Karachi, Pakistan
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Impact of Oral Anti-Diabetic Medication on Liver Fat in Subjects with Type 2 Diabetes Mellitus and Non-Alcoholic Fatty Liver Disease: A Randomized Controlled Trial

Accepted in
IDF 2025, ATTD ASIA 2025

Authors

¹Azra Rizwan, ¹Najmul Islam, ¹Qamar Masood, ¹Nanik Ram, ¹Naeem Khan Dhurrani, ¹Aisha Sheikh, ¹Saeed Sadiq Hamid, ²Muhammad Nabeed Tahir, ³Jahanzeb Kamal Khan, ⁴Ali Nasir, ⁵Muhammad Hammad⁵

Author Institute Details

¹Aga Khan University Hospital, Karachi, Pakistan

²Shaheed Zulfiqar Ali Bhutto University (SZABIST)

³College of Physician & Surgeons Pakistan

⁴Ziauddin University, Karachi, Pakistan

⁵Riphah International University, Islamabad, Pakistan

Background

Rise in type 2 diabetes (T2DM) is linked to growing prevalence of non-alcoholic fatty liver disease (NAFLD), which can lead to non-alcoholic steatohepatitis (NASH).

Objective

To explores reduction in liver fat by combining pioglitazone (Zolid®) with empagliflozin (Diampa®) versus the effects of each drug used independently.

Methodology

Trial was conducted in participants having history of T2DM and documented hepatosteatosi, with an enrollment goal of 150, over a period of 13 month. Participants were randomly assigned to one of the 3 groups: A. Pioglitazone, B. Empagliflozin, C. Combination of both. Pearson's Chi-Square, and Fisher's Exact test were performed using SPSS Version 24.

Results

Out of the 103 participants registered, preliminary data from 69 participants revealed that 23 out of 31 in group A completed their final follow-up. At the last visit, the median Controlled Attenuated Parameter (CAP) score & Intra quartile range (IQR) dropped from 314 (50) at baseline to 303 (56). 22 out of 34 members of group B finished the follow-up, and their CAP scores dropped from 324.5 (51) to 318 (66). 24 out of 38 members of group C finished the follow-up, and their CAP scores dropped from 325 (42) to 313.5 (41). Table 1 displays the changes in steatosis grade between the baseline and final visits.

Conclusions

Preliminary results showed that the greatest reductions were observed in group B to the lowest steatosis grade (S0) and in groups A and C in the highest steatosis grade (S3). Larger sample size is needed to assess the full impact of combination therapy on liver fat.

	Steatosis Grade	Pioglitazone n (%)	Empagliflozin n (%)	Pioglitazone and Empagliflozin n (%)	p- value
Baseline	S0 (150-248dB/m)	0 (0%)	0	0	0.04
	S1 (247-280dB/m)	5 (21.7%)	3 (13.6%)	0	
	S2 (281-299dB/m)	3 (13.0%)	2 (9.15)	5 (20.8%)	
	S3 (Higher than 299dB/m)	15 (65.2%)	17 (77.3%)	19 (79.2%)	
Last visit	S0 (150-248dB/m)	1	4 (18.2%)	0	0.13
	S1 (247-280dB/m)	5 (21.7%)	1 (4.5%)	4 (16.75)	
	S2 (281-299dB/m)	5 (21.7%)	2 (9.1%)	4 (16.7%)	
	S3 (Higher than 299dB/m)	12 (52.2%)	15 (68.2%)	16 (66.7%)	

Table 1. Steatosis grade changes

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