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غضنفر طبی ژورنال

Ghazanfar Medical Journal (GMJ)

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Ghazanfar Medical Journal (GMJ)

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Editorial Note

Dear Readers and Contributors,

It is with great pleasure and a sense of revival that we present to you the long-awaited volume 7 of Ghazanfar Medical Journal (GMJ).

As the Chief Editor, I am delighted to witness the reinvigoration of our journal as a platform for disseminating cutting-edge research and scholarly contributions in the field of Public Health. Our dedicated team has worked tirelessly to overcome the challenges, ensuring that the journal can continue its mission of advancing health knowledge and promoting evidence-based healthcare.

In this volume, we have assembled a diverse array of original research articles from esteemed researchers and clinicians across various medical disciplines. Each submission has undergone a peer-review process, upholding our commitment to academic rigor, scientific integrity, and ethical publishing.

Ghazanfar Medical Journal is committed to fostering a collaborative and inclusive environment that encourages the exchange of ideas and promotes interdisciplinary collaboration. We believe in the power of various perspectives and aim to highlight research from across the country and region.

Moving ahead, I would like to take this opportunity to address an important matter concerning the indexing and online availability of GMJ. Currently, our journal is not indexed in any online database, which significantly limits its visibility and accessibility to the wider academic and scientific community. This limitation not only hinder the dissemination of our article but also delay the ability to attract high quality submissions to our journal. We acknowledge the significance of online indexing as a critical step towards increasing the impact of our articles and are committed to enhancing the accessibility and visibility of GMJ. I, therefore, strongly urge the Emarat Islamic of Afghanistan prioritize the importance of research and academic evidence generation for informed decision-making, and provide necessary support to establish a dedicated online platform for publication of GMJ articles.

Finally, I would like to express my gratitude to the authors who have entrusted their work to Ghazanfar Medical Journal. Your contributions drive our mission of advancing medical knowledge and promoting evidence-based healthcare. I also extend my appreciation to our diligent reviewers and the dedicated editorial team for their unwavering commitment in maintaining the journal's high standards

I invite all our readers, researchers, and healthcare professionals to explore the articles in this volume and actively engage in the ongoing discourse within the medical community.

Best regards,

Taj Malook SAMIM MD, M.Sc.
Chief Director of Ghazanfar Medical Journal

A Hospital-Based Study of COPD Among Patients Referred to Mirwais Regional Hospital in Kandahar

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Abstract
Background: Chronic obstructive pulmonary disease (COPD) is defined as a disease state characterized by persistent respiratory symptoms and airflow limitation that is not fully reversible. COPD includes emphysema, an anatomically defined condition characterized by destruction of the lung alveoli with air space enlargement; chronic bronchitis, a clinically defined condition with chronic cough and sputum production; and small airway disease, a condition in which small bronchioles are narrowed and reduced in number. COPD is a major cause of chronic morbidity and is the third leading cause of death worldwide.
Objective: We conducted a study to describe profile of patients diagnosed, hospitalized and treated for COPD at the Mirwais regional hospital in Kandahar.
Methodology: In this descriptive study, data were collected from 168 patients over the last six months of the year 1399 who presented to the Mirwais regional hospital. We analyzed information about age and gender of the patients and the locations where the patients originated from, in terms of urban and rural.
Result: among 168 patients, 126 (75%) were female, and 101 (60.1%) patients were from urban area, 77.38% of the cases were aged 60+ years.
Conclusions: The study reveals that most of the cases were 60 years or above and women patients are three times more than men patients. This study highlights the predominance of elderly and female COPD patients in Kandahar. Interventions should focus on targeted health education, reducing household air pollution, and promoting seasonal influenza and pneumococcal vaccination.
Key words: Lungs COPD, Afghanistan, Kandahar, Bronchitis, Emphysema

د روغتون په کچه د سږو د مزمنو انسدادي ناروغيو مطالعه په هغه ناروغانو کې چې د کندهار ميرويس حوزوي روغتون ته راجع شوي

لنډيز
شاليد: د سږو مزمنه انسدادي ناروغۍ (COPD) داسې تعريف شوی چې دا يومرضی حالت دی کوم چې متصف دی په دوامداره تنفسی اعراضو او د هوا د جريان په محدوديت سږو ته کوم چې په مکمل ډول د رجعت وړنه وی. د COPD ترچټر لاندی امفزيما، يو اناتوميکی تعريف شوی حالت چې متصف دی د ريوی اسناخو په تخريب او دهوايی خلا په پراخوالی؛ مزمن برانشيت، يوکلينيکی تعريف شوی وضعيت د مزمن ټوخي اوبلغم سره؛ او small airway disease;يوحالت په کوم کی چې د کوچنيو هوايی لارو تنګښت او د شمير کمښت رامنځته کيږی، شامل دی. COPD د مزمن مصابيت يولوی لامل دی اوپه نړۍ کې د مرګ دريم لوی لامل بلل کېږي .
موخې: داڅيړنه په دی موخه ترسره شوی چې دهغه ناروغانو کلينيکی پروفايل تشريح کړی کوم چې د کندهار په ميرويس حوزوی روغتون داخله ځانګه کی د COPD په لوحه تشخيص، بستر او تداوی شوي دی.

کړنلاره: په دی تشریحی څیړنه کی معلومات یادداټا دهغه ۱٦۸ نارغانوڅخه د ۱۳۹۹ هجری شمسی کال په آخرو شپږو میاشتو کی راټول شوي کومو چی میرویس حوزوی روغتون ته مراجعه کړی وه. مونږ دا معلومات د ناروغانو دعمر، جنس، او اوسیدو دځای له مخی چې دښار اوسیدونکی دي او که د اطراف څخه ، تحلیل کړل.

پایلې: دی څیړنې وښوده چی زیاتره پیښې په ٦۰ کلنو اوپورته عمر کی وې. اوښځینه ناروغان دری چنده ترنارینه وو زیات وو. داڅیړنه دا څرکندوی چی په کندهار کی COPD ناروغی په لوړ عمر او ښځو کی بارزه ده. د ناروغانو صحی پوهاوی، په کورونو کی دهوا د ککړتیا کمول، او د موسمی ذکام او نمونیا واکسین تطبیقولو ته وده ورکړل شی.

کلیدي کلیمی: سږي، مزمنه انسدادي ناروغی، افغانستان، کندهار، برانشیت، امفزیما

سریزه

د سږومزمنه انسدادي ناروغی (Chronic Obstructive Pulmonary Disease) د هغه ناروغیو څخه عبارت دي چې د سږو د هوا د جریان په مقابل کی یو بندش په مزمن ډول سره شتون ولري، دا حالت د مزمن برانشیت او یا Emphysema له امله رامینځته کېږي چې د سږو مزمنه انسدادي ناروغی (COPD) په نامه سره یادیږی. د COPD ترعنوان لاندی دوه ناروغی مطالعه کیږی چی یوې ته یی Emphysema یا Type - A COPD او بل ته یې Chronic Bronchitis یا type -B COPD ویل کیږي. (*Kumar* & *Clark,* 2009, Goldman & Ausiello, 2007)

د نړیوال روغتیایي سازمان (WHO) د اټکل له مخې 65 ملیونه خلک له متوسط څخه تر شدید COPD لري. په ۲۰۰۵ میلادي کال کې د COPD له کبله له 3 ملیونه څخه زیاتې مړینې منځ ته راغلې دي چې په ټوله نړۍ کې د 5 سلنې مړینو لامل ګرځي. (McKay, Mahesh, Fordham, Majeed, 2012) د سږومزمنه انسدادي ناروغی (COPD) په نړۍ کې د مرګ دریم لوی لامل بلل کېږي. د روغتیا د نړیوال سازمان د څېړنې له مخې په جنوب ختیځه آسیا کې COPD له ایډز، ملاریا او نري رنځ څخه زیات خلک وژني. په هندوستان کې هر کال نیم ملیون خلک د COPD له امله مړه کېږي. کوم چې دا خلک څلور وارې له هغه خلکو څخه ډېر دي کوم چې په امریکا او اوروپا کې د COPD له کبله مړه کېږي. د Maharashtra د ایالت د ریوټ له مخې د مړینو ډېر مهم لامل دی، کوم چې دا مړینې د زړه د اسکیمک ناروغیو، Stroke او خورې ډیابېټ له امله مړینو څخه ډېرې دي. (Salvi & Agrawal, 2012)

د امریکا په متحده ایالاتو کې 3.5 ملیونه خلک په دې ناروغۍ اخته دي چې د هغې له ډلې څخه 12.1 ملیونه یې په مزمن برانشیټ او نور یې په امفزیما اخته دي. (Health Grades, 2014)

اوس مهال چې زمونږ په ګران هېواد افغانستان کې له یوې خوا د تنباکو څکول زیات شوي او له بلې خوا د هوا ککړوالی د ماشین آلاتو د زیاتو کارولو او د خلکو د ګڼې ګونې له امله زیات شوی دی، په همدې ډول په افغانستان کې د غربت له امله په ډېرو کورونو کې کاغذان، پلاستیک، ټوکران، د بوټونو تلي او نور د پخلي او د کورونو د ګرمولو لپاره کاروي چې اکثره یې ډېر زهرې لوګي تولیدوي چې دا ټول د COPD د پېښو د زیاتوالي لامل ګرځي.

که څه هم پورته ذکرشوی ناروغی اکثراً یوځای یا په مشترک ډول سره پېښېږي، اما اعراض او علایم د یوی ناروغی په کی متبارزه یا Predominant وی. که چیری د مزمن برانشیت اعراض متبارزه وی نو د Predominant Bronchitis او که چیری دEmphysema اعراض اوعلایم متبارزه وی د Predominant Emphysema په نامه سره یادیږی. Emphysema یوه پتالوژیکی اصطلاح ده حال دا چه Chronic Bronchitis یوکلنیکی اصطلاح ده. (Jameson, Fauci, Kasper, Hauser, Longo, Loscalzo, 2018, *Kumar* & *Clark,* 2009) مزمن برانشیټ یا Type B COPD د قصباتو د مزمن التهاب څخه عبارت دی. اوهغه وخت مزمن برانشیټ ورته ویل کیږی چه یومریض کم ترکمه د دوه کالولپاره او په هرکال کی دري میاشتی پرله پسی توګه ټوخی د بلغمو سره ولري. که چیری د ناروغانو بلغم مخاطی وی نو د Simple Ch. Bronchitis په نامه سره او که چیری قیحي وی د موکوپوروولانټ مزمن برانشیټ او که چیری مزمن برانشیت د wheezing سره موجود وی نو د Ch. Asthmatic Bronchitis په نامه سره یادیږی. د پتالوژی له نظره په هغه هوائي طروقو کی چه غضروفی

جوړښت لري په تحت المخاطی طبقه کي هايپرپلازی اوهايپرتروپی ليدل کيږی، او په هغه هوائي طروقو کی چه غضروفی جوړښت نلری يا کوچنيو هوائي طروقو کی د Goblet حجرې، مخاطی حجراتو او تحت المخاطی حجراتو هايپرتروپی رامينځته کيږی او نوموړی طبقی اذيما يي وي. د مرض په پرمختللي مراحلو کي Peri bronchial Fibrosis مينځته راځي او په کوچنيو هوايي لا رو کي مخاطي پلکونه يا Mucous Plaques ليدل کيږي او ملسا عضلات ضخيمه وي. (Maxine, Papadakis, Stephen, McPhee, 2021, Jameson, et al., 2018)

د مزمن برانشيت عوامل او مساعد کونکي فکتورونه په لاندي ډول دي:

١- **د سګرټو څکول (**Smoking**):** په څرګند ډول د مزمن برانشيت او د سګريټو د دود ترمينځ تړاو شتون لري هغه دا چي د سيګريټ دود د ملسا عضلاتو د هايپر تروفی او د مخاطي غشا د اپي تيليم د Hyperplasia لامل ګرزي کوم چي مخاط افرازوي، د Cilia تحرکيت کموي او انتان ته زمينه مساعدوي. همدا رنګه د ملسا عضلاتو د سپازم زياتوالي د Vagus عصب دلاري کيږي او د تحت المخاطي آخذو د تنبه لامل ګرځی. (Jameson, Fauci, Kasper, Hauser, Longo, Loscalzo, 2018)

٢- **د هوايي لارې عکس العمل (**Responsiveness**) او COPD:** د راز راز (Stimuli) لکه Methacholine او هستامين په وړاندې د Bronchoconstriction ډېر شوی ځواب ته ميل د Asthma يوه څرګنده بڼه ده. په دې ډول د COPD ډېر ناروغان هم د هوايي لارې د ډېرې ځواب وينې (Hyperresponsiveness) بڼه د ډاکټر سره شريکوي. د پاملرنې وړ يو پر بل اوښتل په منځ د هغه شخص کې چې Asthma لري او هغه چې COPD لري د هوايي لارې د ځواب ويلو (Responsiveness)، د هوا د جريان انسداد او ريوي اعراضو کې د Dutch فرضيې ته لاربښونه کوي، کوم چې داسې وړانديز کوي: استما، مزمن برانشيټ او امفزيما د ورته اساسي ناروغۍ بيلابيل ډولونه دي چې د چاپېريال او جنټيک عواملو پواسطه تعديل کېږي او بيلا بيل ډولونه منځ ته راځي. بل يې British hypothesis دی کوم چې وايي: استما او COPD په اساسي ډول بېلې ناروغۍ دي، استما په لوړه پيمانه يوه الرجيک وتيره ده حال دا چې له Smoking سره ترلي التهاب يا صدمې پايله ده. (Jameson, Fauci, Kasper, Hauser, Longo, Loscalzo, 2018)

٣- **د هوا ککړوالی (**Air pollution**):** مزمن برانشيت په صنعتي هيوادونو کي چې د هوا ککړتيا په کښی زياته وي ډير منځ ته راځي. د دغه جملي څخه د SO_2 او NO_2 ګازونه د مرض په رامينځته کيدو کي ډيره ونډه لري. (Jameson, Fauci, Kasper, Hauser, Longo, Loscalzo, 2018)

٤- **شغل(**Occupation**):** مزمن برانشيت په هغه کارګرانو کي چې ګرد او د عضوي او غيري عضوي موادو د ګرد سره په تماس کي وي زيات ليدل کيږي. همدارنګه په هغه کاريګرانو کي چې د پنبی په فابريکو او يا معادنو کي کار کوي زيات ليدل کيږي. (Jameson, Fauci, Kasper, Hauser, Longo, Loscalzo, 2018)

٥- **انتان (**Infection**):** مطالعاتو د ناروغی ارتباط د ويروسي، Mycoplasma او باکتريايي انتاناتو سره ښودلي دي چې د دغه جملي څخه Rhino virus د مرض په مينځته راتلو کي زيات عموميت لري. همدارنګه په وړکتوب کي ويروسي نمونيا د کوچنيو هوايي لارو د بندش لامل ګرځی. همدارنګه حاد برانشيت د مزمن برانشيت عمده لامل تشکيلوي، په ځانګړي ډول په هغه کسانو کي چې د سګرټ سره عادت و لري. (Maxine, et al., 2021, Jameson, et al., 2018)

٦- **غير فعال يا د سګريټو دوهم لاس خطر ته مخامخ کېدل:** هغه کسان چې د سګريټو په څکولو روږدي دي کله چې دوی د نورو وګړو سره يو ځای په خونه او موټر کې سګريټ څکوي نو دا دود هم په غير فعال ډول د نورو سږو ته داخليږي چې د ډېرې مودې لپاره د دې دود سره مخامخ کېدل هم د COPD لامل کېدای شي. (Jameson, et al., 2018, Warrell, Timothy, Firth, 2010)

۷- **فاميلي او جنټيک عوامل:** د هغه ميندو اولادونه کوم چې د سګرټو عادت لري نسبت د هغه ميندو کوچنيانو ته چې د سګرټ سره عادت نلري زياتره په تنفسي ناروغيو اخته کيږي. همدارنګه د سګرټ په دود سره د کور د هوا خرابوالي هم د فاميل په نورو غړو بده اغېزه لري. (Maxine, et al., 2021, Warrell, et al., 2010)

همدارنګه هغه مطالعات چې په Mono Zygote دوه ګونو باندې ترسره شوي دي دا ثا بته شوي ده چې بعضي جنټيکي عوامل د مزمن برانشيت په رامينځته کيدو کې رول لوبوي. (Kumar & Clark, 2009)

د Antitrypsin کموالي يا نشتوالي په ارثي ډول سره د مزمن برانشيت لامل کيداي شي په ځانګړي ډول په هغه کسانو کې چې د سګرټ څکولو سره هم عادت ولري. (Maxine, et al., 2021). د سږو امفيزيما (Pulmonary Emphysema) يا Type A- COPD د بين السنخي نسج د تخريب او Alveoli او Terminal bronchioleد توسع يا Dilatation څخه عبارت دي. (Warrell, et al., 2010)

د پتولوژي له نظره د امفزيما د ناروغانو سږي نسبت طبيعي حالت ته غټ وي او د انقباض قابليت يې کم شوی وي. که چيرې سږي پرې شي نو خاسف په نظر راځي. Alveolus يا اسناخ پراخه وي او جدارونه يې نري وي. په بعضي برخو کې د اسناخو جدار له مينځه تللي وي چې څو اسناخ سره يو ځای کيږي او Bulla يا پوکانه مينځ ته راوړي، چې دغه پوکانې يا بولاوی زياتره د سږو په ذروه او د سږو په محيط کې د حشوي پلورا لاندې ځای لري. کله هم ويزيکولونه د حشوي پلورا لاندې ليدل کيږي چې اندازه يې د سنجاق څخه غټه وي. د Bulla په مينځ کې فبريني الياف، د بين السنخي جدارونو بقايا او Atrophic اوعيه ليدل کيږي. همدارنګه برانشيولونه او Alveolar duct پراخه يا متوسع وي. (Jameson, et al., 2018)

هغه پتالوژيك بدلونونه کوم چې په اسناخو او برانشيولونو کښې رامينځته کيږي د امفيزيما مورفولوژيك طبقه بندي تشکيلوي، چې په دغه اساس دوه ډوله امفزيما شتون لري چې يوې ته يې Centri acinar Emphysema او بل ته يې Pan acinar Emphysema ويل کيږي. په Centri acinar Emphysema کې پراخوالي او تخريبات په برانشيولونو او سنخي قناتونو کښې موجود وي او د اسناخو په محيط کښې ډيرکم بدلونونه ليدل کيږي. مګر په Pan acinar Emphysema کې پراخوالي او تخريبات زياتره په اسناخو کښې ليدل کيږي. (Warrell, et al., 2010, Maxine, et al., 2021)

د امفزيما لاملونه په لاندې ډول تشريح کېږي:

۱. مساعد کوونکي عوامل: ريوي امفيزيما اکثراً د لوړ سن يا کهولت په دوران کې ليدل کيږي، نارينه نسبت ښځو ته زيات مصابوي مساعد کونکي عوامل يې عبارت دي له: سګرټ څکول، د هوا ککړتيا، شغل، ارثي او فاميلي عوامل کوم چې د مزمن برانشيت په برخه کې په مفصله توګه ورځخه يادونه وشوه. (Maxine, et al., 2021, Warrell, et al., 2010)

د Elastase anti elastase Imbalance: لکه څرنګه چې فکر کيږي په امفيزيما کې آفت اساساً د اسناخو په جدار باندې د Elastase د پروتيولايتيک اغېزو له امله رامينځ ته کيږي. دغه پروتيولايتيک انزايم د هغه سپينوکريواتو څخه چې د اسناخو په التهابي پروسه کې برخه اخلي افرازيږي. دغه پروتيولايتيک اغېزې د عضويت د Anti-proteolytic اغېزو پواسطه خنثي کيږي نو ځکه په هغه کسانو کې چې په ارثي توګه د الفا -۱ انتي تريپسين انزايم په کمبود اخته وي نو د عضويت قدرت د Elastase په خنثي کولوکښې کميږي او دغه کسان د عمر په متوسطه دوره کې د امفيزيما اعراض ښکاره کوي. (Maxine, et al., 2021, Kumar & Clark, 2009)

۲. **تحريکوونکي عوامل:** دغه عوامل عبارت دي له: د برانشيولونو انسدادي ناروغي، د مزمن برانشيت د قصباتو سپزم او نمونيا څخه. (Maxine, et al., 2021) د برانشيولونو انسداد د مخاطی ترشحاتو د غونډېدو او التهاب څخه رامينځته کيږي او يا کيدای شي چې الرژيك منشه ولري. (Jameson, et al., 2018)

په مزمن برانشيت کښې د برانشيولونو په نهايا تو کې والونو ته ورته ساختمانونه رامينځته کيږي چې د شهيق په وخت کې د هوا داخليدو ته اجازه ورکوي مګر په مشکل سره تري

خارجيږي چې په پای کی د اسناخو په داخل کښې هوا زياتيږي چې د اسناخو د توسع او د جدارونو د تخريب لامل گرځي. (Maxine, et al., 2021, Colledge, Walker, Ralston, 2010)

له دی معلوماتو سره سره داسی کومه څيړنه د کندهار په حوزوی روغتون کی نه ده تر سره شوی چی په هغې کې د COPD ناروغيو په اړه معلوماتو وړاندی کړي. په همدی ا ساس ميرويس روغتون په داخله وارډ کې د 1/ 7/ 1399 څخه تر 30/ 12/ 1399 يوه څيړنه ترسره شوه چې موخه يی د هغو ناروغانو خصوصياتو مالومول وو کوم چی د COPD په لوحه په ميرويس حوزوی روغتون کې بستر او تداوی شول.

د څيړنې کړنلاره او توکي

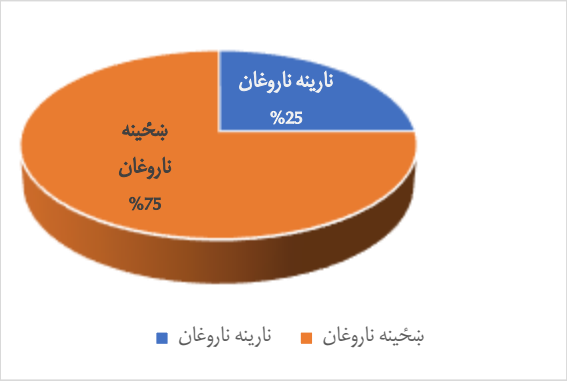
دا تحقيقاتي څيړنه په Prospective طريقه باندې په ميرويس حوزوي روغتون کې ترسره شوه او په دې طريقه کی 168 ناروغان چې نارينه او ښځې دواړه پکښې شامل وو او د ۱۸ څخه تر ۹۹ کالو په منځ کې يې عمر لرلو، دا ټول ناروغان د ميرويس روغتون په داخله وارډ کې د 1/ 7/ 1399 څخه تر 30/ 12/ 1399 نيټې پورې بستر، کتل شوي او درملنه يې ترسره شوي ده.

البته د دي ناروغانو لومړی مشاهدې په مکمل ډول اخستل شوې چې پکښې د ناروغ ځانګړتياوې، د ناروغ شکايات، د ناروغ مخکنی تاريخچه، کورنی تاريخچه او نور ذکر شوي دي. ورپسې ناروغ په عمومي او بيا په سيستميک ډول معاينه شوی دی، د مکملی معاينی څخه وروسته يی اړين معاينات ترسره شوي او بالاخره د تشخيص څخه وروسته يی مناسبه درملنه ترسره شوي، البته د درملنی په جريان کی د ناروغ Follow up او د ناروغ بهبودي ليکل شوې او په پای کی د رخصت کيدو پر مهال د ناروغ حالت هم ليکل شوی په دې لړی کی چی کومی پايلی او شميرې (اعداد) مورِ ته د ناروغانو څخه لاس ته راغلي د همدې پايلو او اعدادو څخه مو د خپلی څيړنی لپاره گټه اخستي. هغه توکی (مواد) چی ددې تحقيقاتی څيړنی د سرته رسولو لپاره ترې کار اخستل شوی دی په خپله ناروغان، د ناروغانو دوسيی د ناروغانو روتين معاينات، راډيوګرافی او نور تشکيلوی.

داخلاقياتو د نظره نوموړی موضوع د داخله ديپارتمنت دغړو او شيف په ګډون تر انتخاب وروسته د روغتون د علمی شورا او اخلاقياتو د کميتی څخه تائيد شوی، د ناروغانو څخه د پوښتنليکونو د ډکولو پرمهال د دوی رضايت په شفاهی توګه اخيستل شويې وه.

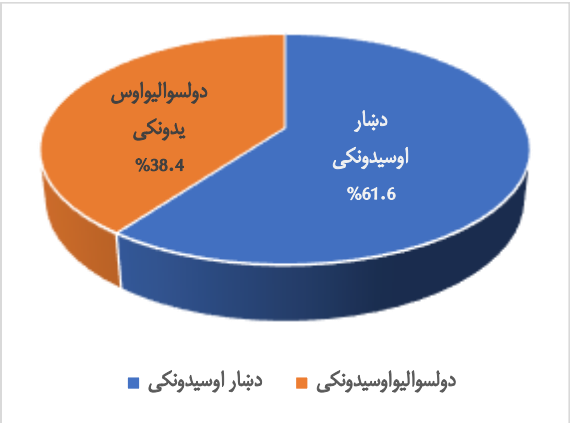
د څيړنې پايله

د جنس له نظره د ۱٦۸ ناروغانو له جملې څخه 42 ناروغان (۲۵٪) نارينه او ۱۲٦ ناروغان (۷۵٪) ښځينه وو.



انځور۱-۱: د جنس له نظره ديپښو سلنه.

په همدې ډول د هستوګنې د ځای له نظره ۱۰۱ ناروغان (٦۰,۱٪) د ښار اوسېدونکي او ٦۷ ناروغان (۳۹,۹٪) د ولسوالیو اوسېدونکي وو. چې دا ممکن د دی سبب څخه وي چې په ښارونو کی ګڼه ګونه زياته وی، دوړی، دودونه او د هوا ککړتيا ډيره وی، ونی باغونه اوشنه فصلونه کم وی چې دهوا پر پاکی زياته اغيزه لری.



انځور۱-۲: د هستوګنځي له نظره دپښتوسلنه.

د عمر له نظره 2 ناروغان (1.2 سلنه) د دريمې لسيزې عمر درلوده، 5 ناروغان (2.9 سلنه) د څلورمې لسيزې عمر درلوده، 12 ناروغان (7.1 سلنه) د پنځمې لسيزې عمر درلوده، 130 ناروغان (77.38 سلنه) د عمر په شپږمه لسيزه اوپورته عمرکښې وو، چې په دی اساس تقريبا دری پر څلور برخه ناروغان شپيته يا له شپيته کلونوڅخه د لوړ عمر لرونکی وو.

شمېره	عمر	د ناروغانو شمېر	سلنه(٪)
1	له 20 - 29 کاله	2	1.19
2	له 30 - 39 کاله	5	2.98
3	له 40 - 49 کاله	12	7.15
4	له 50 - 59 کاله	19	11.30
5	≥ 60 کاله	130	77.38

جدول۱-۱: د عمر له نظره د پيښوتعداد اوسلنه.

مباحثه او مناقشه

د دې څېړنې تر بشپړيدو وروسته جوته شوه چې د سږو مزمنه انسدادي ناروغی د 168 ناروغانو له جملې څخه 126 ناروغان (75 سلنه) ښځينه وو.

د نړيوال روغتيايي سازمان (WHO) د څېړنو له مخې د سږو مزمنه انسدادي ناروغی په نارينه وو کې د سګريټو د څکولو له امله دېره وي ولې په کښته اقتصاد لرونکو هېوادو کې په ښځو کې د خونو په منځ کې د دود کولو له امله يې پيښې لوړېدای شي (McKay, et al., 2012) .

څرنګه چې په افغانستان او په ځانګړي ډول په کندهار کې له يوې خوا د غربت له امله په دېرو کورونو کې کاغذان، پلاستيک، ټوکران، د بوټونو تلي او نور زهرجن پلاستيکي او کيمياوي توکي د پخلي او د کورونو د ګرمولو لپاره کارول کېږي چې اکثره يې دېر زهرجن لوګي توليدوي چې دا ټول د سږو مزمنه انسدادي ناروغی د پيښو په زياتوالي کې څرګنده رول لوبوي، له بلې خوا د دېرو جنګونو له کبله مهاجرتونه دېر زيات شوي چې له دې مهاجرتونو سره غربت او بې وسي هم مل ده چې دا مهاجرين هم د دېرو اقتصادي او اجتماعي ستونزو له امله د هېڅ شي د سوځولو څخه مخ نه اړوي. چې د زهرجنو توکو د سوځولو له امله زهرجن لوګی توليدېږي او دا په خپل وار د سږومزمنه انسدادي ناروغی په منځ ته راتلو کې رول لري.

د هستوګنې د ځای له نظره 101 ناروغان (60,1 سلنه) د ښار اوسېدونکي وو. په يو شمير څېړنو کې دا څرګنده شوې چې د سږو مزمنه انسدادي ناروغی د هوا د ککړوالي له امله په ښارو کې د کلو او بانډو په پرتله دېر ده. (Jameson, et al., 2018)

له بلې خوا د صحرا په پرتله د ښار په اوسېدونکو کې د سګريټو څکول ډير عام دي، په همدې ډول زمونږ په ګران هېواد افغانستان کې هم دا دېره ګڼه ګونه د جنګ له کبله د مهاجرتونو پايله ده، دا له يوې خوا او په هېواد کې د پرمختګ سره د وسيلو د ډيروالي له امله په ښارونو کې هوا دېره ککړه شوې ده چې دا ټول د ناروغی په راوستلو کې دېر رول لري.

د عمر له نظره ۱۳۰ناروغان (77.38سلنه) د(٦٠+) کلن دي چې دا تر ټولو لوړه سلنه د پيښو ده.

لږ تر لږه يو په دريو سګرټ څکوونکو کې چې عمر يې 35 څخه تر 59 کالو عمر ولري په مزمن برانشيټ اخته کېږي چې دا پيښې د عمر د زياتولي سره نورې هم زياتېږي. (Ausiello 2007 & Goldman)

اخريزه او سپارښتنې

زمونږ څېړنې و ښوده چې د په ميرويس روغتون کی د COPD اکثريت ناروغان د ٦٠ يا زياتو کلونو خاوندان دی. همدارنګه ښځی دری چنده له نارينه وو څخه زياتې وی. لاندی سپارښتنی د ناروغی او د هغی د شدت کمولو لپاره وړاندې کېږي.

- د تنباکو داستعمال داضرارو په اړوند عامه پوهاوی دناروغی په مخنيوی کی رول لری.
- وګړی بايد وپوهول شي چی يوازی فعال تنباکو څکونکي نه بلکه غير فعال تنباکو څکونکي هم د ناروغی په خطر کی دی، نو د اوسيدو په خونو، عامه ځايونو، شهری بسونو... کی د تنباکو داستعمال څخه ډډه وشي.
- د اوسيدو په خونو کی منظم د تهويی سيستم موجود وی، او د خونوپه ګرمولو کی د هغه موادو څخه کار واخيستل شي چی کم ياهيڅ دود نه توليدوی.

- د COPD ناروغانو پوهاوی د تشدید کونکو عواملو په اړوند، او د واکسینونو(انفلونزا او پنیموکوکل) تطبیق د منی او ژمی په موسمونو کی د ناروغۍ دشدت او بستر کیدو کچه کمولی شي.

- وثیړل شي چی ولی د COPD ناروغۍ کچه په ښځو کی ډیره ده تر څو د مخنیوی لپاره یې د عامی روغتیا وزارت مناسب اقدامات ترسره کړي.

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Descriptive Study of Brucellosis Based on Occupation and Geographic Location at Kabul Infectious Diseases Hospital

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Abstract

Background: Brucellosis remains a significant public health concern in Afghanistan, exacerbated by low health service coverage and frequent human-animal interactions. This study evaluates the frequency and occupational distribution of Brucellosis among patients admitted to Kabul Infectious Diseases Hospital during 1402 Hijri Shamsi.

Methodology: A descriptive retrospective study was conducted. Out of 538 confirmed Brucellosis cases, 75 patient files were randomly selected for detailed analysis. Data were collected using standardized forms, focusing on occupation, place of residence, and history of animal contact. Data analysis was performed using Microsoft Excel.

Result: Among the 75 cases, 64% were females and 36% were males. Occupationally, 53.3% of patients were housewives and 26.6% were farmers and livestock workers. Rural residents formed the majority of cases. The case fatality rate was 0%.

Conclusion: Brucellosis remains prevalent among populations with close animal contact, especially housewives and farmers in rural Afghanistan. Public health interventions including vaccination, awareness campaigns, and occupational safety measures are essential.

Key words: Afghanistan, Brucellosis, Occupational Exposure, Zoonotic Diseases, Mortality

د بروسیلوزس ناروغۍ توصیفي څېړنه د دندې او جغرافیوي موقعیت پر بنسټ په کابل انتاني روغتون کې لنډیز

شالید: بروسیلوزس په افغانستان کې د عامې روغتیا یوه مهمه اندیښنه اوستونځه ده چې د روغتیایي خدماتو د ټیټ پوښښ او د انسانانو او څارویو ترمنځ د پرله پسې نږدی والي له امله دا ستونځه نوره هم ډیره شویده دا څېړنه د ۱۴۰۲ هجري شمسي کال په جریان کې د کابل په انتاني روغتون کي د بروسیلوزس بستر شویو ناروغانو ترمنځ د نوموړي ناروغي فریکونسي او حرفوي ویش ارزوي.

کړنلاره: لکه ځرنګه چې دا ځېړنه یوه تشریحي Retrospective ځېړنه ده او د بروسیلوزس ۵۳۸ بستر شوی ناروغانو له دوسیو ځخه ۷۵ د ناروغانو دوسي په تصادفي ډول د تحلیل لپاره غوره شوي چې معلومات د معیاري فورمو په کارولو سره راټول شوي چې په نوموړو فورمو کی د شغل، د استوګنې ځای او د څارویو سره د نږدي اړیکو تاریخچه لرلو باندې تمرکز کوي دغه معلومات بیا د Excel پروګرام پواسطه تحلیل اوتجزیه شویدي

پایلې: د بروسیلوزس له ۷۵ ناروغانو له واقعاتو څخه، ٦۴٪ ښځې او ۳٦٪ نارینه وو په مسلکي توګه، ۵۳,۳٪ ناروغان د کور ښځې وې او ۲٦,٦٪ بزګران او د څارویو ساتونکي وو او همدارنګه دا ناروغان اکثریت کلیوالي اوسیدونکي وو او د مړینې کچه ۰٪ وه.

پایله: بروسیلوز د هغو خلکو په منځ کې چې د څارویو سره نږدې اړیکه لري په ځانګړې توګه د کورنیو میرمنو او بزګرانو په منځ کې لاهم شتون لري چې اکثره دغه ناروغان د افغانستان په کلیوالو سیمو کې ژوند کوي او بیا هم د عامې روغتیا مداخلې په ګډون د واکسیناسیون، د عام پوهاوي کمپاینونو او د حرفوي یا شغلي خوندیتوب تدابیر اړین دي.

کلیدي کلمې: افغانستان ، بروسیلوزس، د خپل کار په ځای کي د ناروغي سره مخامخ کید، څرګندونه ، زونوتیک ناروغي، مړینه

سریزه

بروسیلوزس یوه جدي زونوزس ناروغي ده چې د ځارویو څخه انسانانو ته انتقالیږي او کولای شي د انسان د بدن بیلابیل غړي لکه هډوکي، تنفسي سیستم او مرکزي عصبي سیستم تر اغیز لاندې راولي دا ناروغي که پر وخت تشخیص او درملنه یې و نه شي د شدیدو اختلاطاتو لامل ګرځي چې د مرګ میر کچه یې د ۲٪ څخه تر ۵٪ پورې رسېدلای شي[۱]. په افغانستان کې د روغتیایي خدمتونو محدودیت، د ځارویو د واکسین نه شتون، د عامو خلکو د حفظ الصحې اصولو ته پاملرنه نه کول او د ځارویو محصولاتو غیرمحفوظ استعمال، ټول د بروسیلوزس د پراخ خپرېدو اساسي عوامل ګڼل کېږي [۲]. دا وضعیت د ناروغۍ د پېښو د زیاتوالي او د اقتصادي، ټولنیزو او روغتیایي زیانونو د پراخېدو لامل شوی دی.

د بروسیلوزس ناروغي د نړیوالو روغتیایي سازمانونو له خوا د مهمو زونوزس ناروغیو له ډلې څخه ګڼل شوې ده. د مناسب کنټرول تدابیرو د نشتوالي په صورت کې نه یوازې د ناروغۍ پېښې زیاتېږي بلکې د ناروغۍ شدت او د مړینې خطر هم لوړېږي [۳]. دغې ناروغۍ د عامه پوهاوي د کچې لوړول، د ځارویو واکسین کول، او د انسانانو او ځارویو ترمنځ د تماس په وخت کې د مناسبو روغتیایي تدابیرو عملي کول د ناروغۍ د مخنیوي لپاره ضروري اقدامات دي. سربېره پر دې د روغتیایي سیستم لپاره دا خورا مهمه ده چې د معلوماتو د دقیق راټولولو او د څېړنو د نتایجو څخه د پالیسیو او ستراټیژیو په جوړولو کې ګټه واخیستل شي تر څو د ناروغۍ پراخوالی کنټرول او د خلکو روغتیایي وضعیت ښه شي[٤]. په همدې موخه دا څېړنه ترسره شوې ده تر څو د بروسیلوزس د ناروغانو د پېښو شمېر، ښه، او د خطر فکتورونه وڅېړل شي، او د ناروغۍ د کنټرول لپاره لازم علمي معلومات برابر شي. د دې څېړنې له پایلو څخه به د روغتیایي کارکوونکو د پوهې د لوړولو، د علمي پالیسۍ د جوړولو، او د مړینې د کچې د راکمولو لپاره ګټه واخیستل شي[٥].

د څېړنې کړنلاره

د څېړنې ډیزاین

دا څېړنه په تحلیلي- توصیفي میتود سره ترسره شوه. هدف یې د ۱۴۰۲ کال په جریان کې په انتاني روغتون کې د بروسیلوزس ناروغانو د فریکونسۍ او نمونو څېړنه وه.

د څېړنې ځای

دغه څېړنه د کابل په انتاني روغتون کې د ۱۴۰۲ کال د حمل میاشتې (مارچ) له پیل څخه تر حوت میاشتې پورې د شاتینی څېړنه په ډول ترسره شوه. د معلوماتو راټولولو لپاره د معیاري معلوماتو راټولولو فورم څخه کار اخیستل شوي چې پکې د ناروغ د وظیفې، عمر، جنس، استوګنې ځای، د ځارویو سره د اړیکي تاریخچه، او اختلاطات ثبت شوي وو. دغه معلومات بیا د اکسل پروګرام په مرسته تجزیه او تحلیل شول.

د څېړنې وګړي

د څېړنې وګړي ټول هغه ناروغان وو چې د ۱۴۰۲ کال د حمل میاشتې له پیل څخه تر حوت میاشتې پورې د بروسیلوزس په مشکوکې لوحې سره انتاني روغتون ته مراجعه کړې وه. په ټوله کې ۵۳۸ ناروغان ثبت شول. د دې څخه ۷۵ ناروغان په تصادفي ډول سره د څېړنې لپاره انتخاب شول.

د معلوماتو راټولونه

د ناروغانو د دوسیو څخه د معیاري معلوماتو راټولولو فورم کارولو سره معلومات راټول شول. په دې فورم کې د ناروغ د وظیفې، عمر، جنس، استوګنې ځای، د ځارویو سره د تماس تاریخچه، او اختلاطات شامل وو. دغه معلومات بیا د Excel پروګرام ته نوټل او ورسته تحلیل او تجزیه شویدي.

د معلوماتو تحلیل

د راټولو شویو معلوماتو تحلیل د اکسل پروګرام په مرسته ترسره شو. د متغیرو لکه عمر، جنس، وظیفه او د اختلاطونو شتون د توصیفي احصایې په مرسته خلاصه او لنډه وړاندې شوه.

د شاملیدو ځانګړتیاوې

- هغه ناروغان چې عمر یې د ۱۸ کالو زیات وو او د بروسیلوزس مشکوکه لوحه یې درلوده.
- هغه ناروغان چې د ځارویو سره یې نږدې تماس درلود او تبه یې لرله.
- هغه ناروغان چې د بروسیلوزس نښې (تبه، د شپې لخوا خولې کیدل، د هډوکي دردونه) لرلې خو د نورو تبه لرونکو ناروغیو تاریخچه یې نه درلوده.

د نه شاملیدو ځانګړتیاوې

- هغه ناروغان چې عمر یې د ۱۸ کالو څخه کم و.
- هغه ناروغان چې د بروسیلوزس مشکوکه لوحه یې درلوده خو د نورو معایناتو له مخې د بروسیلوزس لپاره منفي وو.
- هغه ناروغان چې د نورو تبه لرونکو ناروغیو تاریخچه درلودله.

اخلاقي معیارونه

د کابل انتاني روغتون د علمي شورا څخه د دې څېړنې لپاره اجازه اخیستل شوې وه. ټول اخلاقي معیارونه رعایت شوي دي، او د ناروغانو شخصي معلومات پټ ساتل شوې دي. د ناروغانو وینه د معاینې لپاره د روغتون داخلي لابراتوار ته لیږل شوې وه او د معایناتو پایلې په معین وخت کې ترلاسه شوې.

نتایج

په دې څېړنه کې چې د ۱۴۰۲ کال تر حوت میاشتې پورې د ۷۵ ناروغانو په اړه ترسره شوه د ناروغانو د جنسیت او دندو پراساس تحلیلونه ترسره شول. له دې جملې څخه ۴۸ ناروغان ښځینه وو چې ٦۴٪ برخه یې تشکیلوي. د دې ۷۵ ناروغانو له ډلې ۴۰ ناروغان (۵۳,۳۳٪) د کورنۍ کارکوونکي (کور میرمني) وو، او ۸ نور یې ښوونځي زده کوونکي او بیلابیلې نورې دندې درلودې، چې دا هم ۱۰,٦٪ جوړوي. په ۲۷ نارینه ناروغانو کې چې ۳٦٪ کیږي، د دندې له مخې ۲۰ ناروغان (۲٦,٦٪) د کرهنې او مالدارۍ سره تړاو درلود، او ۷ ناروغان (۹,۳۳٪) یې ښوونځي زده کوونکي، قصابان، د مسلخ کارکوونکي او وترنري کارکونکي وو.

د تشخیص شوو ناروغانو کې د مرګ میرکچه (Case Fatality Ratio) صفر (۰) راپور شوې ده، چې دا ښیي چې د ناروغۍ لپاره د اړینو درملنو او مداخلې پروګرامونو څخه ګټه اخیستل شوې ده.

همدارنګه په دې څېړنه کې څرګنده شوې چې د بروسیلوزس ناروغۍ لپاره ببلابېل زمینه برابرونکي فکتورونه شتون لري که چیرې مورد د دې فکتورونو په مهارولو کار وکړو نو دا کولی شو چې د بروسیلوزس د ناروغۍ د خپرېدو او رامنځته کېدو خطرات له منځه یوسو د دې لپاره یو جدي او مؤثر کنټرول پروګرام ته اړتیا ده چې په هغه کې باید د سمو کړنلارو طرح کول او د خلکو د پوهاوي کچه لوړه کړو په خاص ډول د هغو کسانو په اړه چې د ځارویو سره اړیکه لري د دې ترځنګ، د طبي پرسونل روزنه او د هغو ناروغانو لپاره پوهاوی چې د بروسیلوزس ناروغۍ سره مخ شوي اړین دي.

د ۱۴۰۲ کال د څېړنې پر بنسټ د دې ناروغۍ پېښو کې ښکاره کموالی راغلی دی چې دا د خلکو د پوهې د لوړېدو او د انتان د انتقال لارې د پیژندلو څرګندونه کوي او دا ښیي چې د خلکو پوهاوی زیات شوی او په نتیجه کې د بروسیلوزس ناروغۍ د خپرېدو خطر کم شوی دی.

بحث

په دې څېړنه کې د ۱۴۰۲ کال تر حوت میاشتې پورې د بروسیلوزس ناروغۍ په اړه ترسره شوې موندنې د دې ناروغۍ د پراختیا کنټرول او مخنیوي لپاره مهمې او ګټورې پایلې وړاندې کوي. کله چې د دې څېړنې نتایج د نورو موجودو مطالعاتو سره پرتله کړو نو په ځینو برخو کې همغږي او په ځینو نورو کې توپیرونه څرګندېږي.

یوه له مهمو موندنو څخه دا ده چې په دې څېړنه کې ښځینه ناروغانې د نارینه وو په پرتله ډېرې وې. د دې موندنې سره ورته

پایلې په څو نورو مطالعاتو کې هم موندل شوي دي، لکه یوه مطالعه چې په ترکیه کې ترسره شوې وه، چیرې چې د بروسیلوزس ناروغۍ په ناروغانو کې د ښځو تناسب لوړ و [٦].د دې لپاره چې ښځې د کور په کارونو او کرهنه کې د ځارویو سره نږدې اړیکه لري دوی د ناروغۍ په وړاندې زیات حساسیت لري. دا د دې څیړنې پایله تاییدوي چې ښځې د بروسیلوزس ناروغۍ په لوړ خطر کې واقع دي.

د ناروغانو د دندې پراساس هم ځینې مهمې موندنې شتون لري. په دې څیړنه کې هغه ناروغان چې د کرهنه او مالدارۍ سره تړاو درلود د بروسیلوزس ناروغۍ په وړاندې د زیات خطر سره مخ و. دا موندنه د نورو څیړنو سره هم سمون لري، لکه یوه مطالعه چې په پاکستان کې ترسره شوې وه، چې د کرهنه او مالدارۍ سره تړاو لرونکي کسان د بروسیلوزس د خپرېدو لوړ خطر لري [٧].د دې لپاره د بروسیلوزس ناروغۍ په اړه پوهاوی او وقایوي تدابیر ډېر مهم دي.

په دې څیړنه کې د مرګ میرکچه صفر (٠) راپور شوې چې د دې معنا دا ده چې د بروسیلوزس د ناروغانو لپاره د روغتونونو د درملنې پروګرامونه مؤثر واقع شوي دي. دغه موندنه د نورو مطالعاتو سره هم همغږي لري چې ښیي د بروسیلوزس د ناروغانو په اړه په وخت سره درملنه کول د مرګ خطر کموي [٨].د دې څیړنې پایله ښیي چې که چیرې د بروسیلوزس ناروغان په وخت سره تشخیص شي او د مؤثره درملنې لاندې راشي نو د ناروغۍ جدي عواقب لکه مرګ او درونده بدنې تاوان کمېدای شي.

په دې څیړنه کې یوه بله مهمه موندنه دا ده چې د بروسیلوزس د ناروغۍ پېښو کې کموالی راغلی دی، چې د خلکو د پوهې د لوړولو سره تړاو لري. دا د دې ښودنه کوي چې د عامه پوهاوي پروګرامونو په مرسته خلک د بروسیلوزس د ناروغۍ د خپرېدو لارو په اړه ښه پوهه پیدا کړې ده. دا پایله د نورو څیړنو سره هم سمون لري لکه هغه څیړنه چې په مصر کې ترسره شوه، چیرې چې د پوهاوي پروګرامونو د پلي کولو وروسته د بروسیلوزس پېښې کې کموالی راغلی و[٩]

په ټولیزه توګه د دې څیړنې پایلې د بروسیلوزس د ناروغۍ د کنټرول او مخنیوي لپاره د اړینو پروګرامونو د پلي کولو اهمیت ته اشاره کوي. د دې ناروغۍ د خپرېدو د کمولو لپاره، د ځارویو سره د تماس لرونکو کسانو لپاره د پوهې لوړول او د وقایوي تدابیر پلي کول اړین دي. په دې توګه د دندې له مخې په ځانګړې توګه هغو کسانو ته چې د کرهنه او مالدارۍ سره تړاو لري د دې ناروغۍ په اړه سم معلومات ورکول اړین دي. همدارنګه د بروسیلوزس د ناروغۍ د خپرېدو د مخنیوي لپاره د روغتیایي پروګرامونو پراختیا او د طبي پرسونل روزنه هم اړینه ده.

دا څیړنه د دې ناروغۍ د پراختیا په اړه ګټورې پایلې وړاندې کوي خو د نورو مطالعاتو اړتیا شته ترڅو د بروسیلوزس د کنټرول لپاره نورو نوو او مؤثرو لارو چارو د رسېدو لپاره پراخې څیړنې ترسره شي.

سپارښتنې

١. د پوهاوي لوړول: د بروسیلوزس د ناروغۍ د مخنیوي لپاره د خلکو په ځانګړې توګه هغو کسانو چې د کرهنه او مالدارۍ سره تړاو لري، د دې ناروغۍ په اړه پوهاوی لوړول اړین دي. د عامه پوهاوي پروګرامونه باید په کلیوالو سیمو کې پلي شي.

٢. د وقایوي تدابیر پلي کول: د بروسیلوزس د خپرېدو د مخنیوي لپاره باید د ځارویو سره د تماس لرونکو خلکو لپاره وقایوي تدابیر لکه د ځارویو صحي درملنې او د پاکوالي تدابیر پلي شي.

٣. د درملنې پروګرامونو پراختیا: د بروسیلوزس د ناروغانو لپاره باید د درملنې پروګرامونه پراخه او پرمختللي شي ترڅو ناروغان په وخت سره درملنه ترلاسه کړي او د ناروغۍ جدي عواقب څخه مخنیوی وشي.

٤. د طبي پرسونل روزنه: د طبي پرسونل روزنه او په بروسیلوزس کې د هغوی د پوهاوي لوړول باید یو لومړیتوب ولری ترڅو چې په صحیح وخت سره تشخیص او درملنه وکړي.

٥. د ځیړنې پراختیا: د بروسیلوزس په اړه نورو ځیړنو ته اړتیا شته ترڅو د ناروغۍ د خپریدو نوي لارو چارو او د هغې د کنټرول موثره لارې پیدا شي.

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Descriptive Epidemiology of Pneumonia Cases in Parwan Province, Afghanistan (2021–2023): Secondary Analysis Using DHIS2 Data

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Abstract

Background: Pneumonia remains a major public health issue in Afghanistan and continues to be a significant contributor to hospital visits and mortality. This study aimed to describe the distribution and incidence of pneumonia in Parwan province between 2021 and 2023.

Methodology: A descriptive secondary data analysis was conducted using the District Health Information Software 2 (DHIS2) and Excel-based provincial health reports. Pneumonia cases reported between January 2021 and September 2023 were analyzed by person (age, sex), place (district), and time (month, year). Data cleaning and analysis were performed using Microsoft Excel 2021.

Results: A total of 269,910 pneumonia cases were reported, including 142,049 females (53%) and 126,861 males (47%). The majority of cases (57%) occurred in children under five years of age. Charikar reported the highest number of cases (29%), followed by Bagram (21%), Seya Gerd (12%), and Sorkh Parsa (10%). The highest annual case count was in 2022 (44%), while 2021 and the first nine months of 2023 each accounted for 28%. Seasonal peaks were observed in December, January, and February, consistent with cold-weather trends.

Conclusion: This study confirms the substantial burden of pneumonia in Parwan province, particularly among young children. Geographic variations suggest disparities in healthcare access and reporting practices. Strengthening primary care services, enhancing surveillance systems, and implementing winter-season interventions are essential to reduce pneumonia-related morbidity and mortality.

Keywords: Pneumonia, Child Health, DHIS2, Seasonal Trends, Parwan, Afghanistan

اپیدمیولوژی توصیفی واقعات سینه بغل در ولایت پروان، افغانستان (۲۰۲۱–۲۰۲۳): تحلیل ثانوی با استفاده از معلومات DHIS2

چکیده

پس منظر : نمونیا (سینه و بغل) همچنان یکی از مسایل جدی صحت عامه در افغانستان به شمار می‌رود و سهم قابل توجهی در مراجعات شفاخانه‌ای و مرگ‌و میر دارد. این مطالعه با هدف توصیف توزیع و میزان بروز نمونیا در ولایت پروان در فاصله سال های ۲۰۲۱ تا ۲۰۲۳ انجام شده است.

روش تحقیق: این یک مطالعه توصیفی مبتنی بر تحلیل ارقام ثانوی بوده که از سیستم معلومات صحی ولسوالی‌ها (DHIS2) و راپور های صحی ولایتی مبتنی بر برنامه اکسل جمع آوری شده است. واقعات نمونیا گزارش شده بین ماه های جنوری ۲۰۲۱ تا سپتمبر ۲۰۲۳ بر اساس

مشخصات فردی (سن و جنس)، مکان (ولسوالی) و زمان (ماه و سال) مورد تحلیل قرار گرفت. تصفیه و تحلیل ارقام توسط نرم افزار Microsoft Excel 2021 انجام شده است.

یافته‌ها: در مجموع، ۲۶۹،۹۱۰ واقعه نمونیا گزارش گردیده است که از آن میان ۱۴۲،۰۴۹ (٪۵۳) زن و ۱۲۶،۸۶۱ (٪۴۷) مرد بوده اند. بیشترین واقعات (٪۵۷) در میان کودکان زیر پنج سال رخ داده است. ولسوالی چاریکار بیشترین تعداد واقعات را (٪۲۹) ثبت کرده و پس از آن ولسوالی بگرام (٪۲۱)، سیاه‌گرد (٪۱۲) و سرخ پارسا (٪۱۰) قرار دارند. بیشترین رقم سالانه در سال ۲۰۲۲ (٪۴۴) ثبت شده، در حالی که سال ۲۰۲۱ و نه ماه اول سال ۲۰۲۳ هرکدام ٪۲۸ واقعات را در بر گرفته اند. اوج‌گیری فصلی واقعات در ماه های دسمبر، جنوری و فبروری مشاهده گردید که با روند سرمای هوا مطابقت دارد.

نتیجه‌گیری: این مطالعه بار سنگین نمونیا در ولایت پروان را، به ویژه در میان کودکان خوردسال، تأیید می‌کند. تفاوت های جغرافیایی نشان دهنده نابرابری در دسترسی به خدمات صحی و تفاوت در کیفیت گزارش دهی است. تقویت خدمات صحی ابتدایی، بهبود سیستم های مراقبت و نظارت، و اجرای مداخلات فصل زمستان برای کاهش مرگ و میر و بیماری ناشی از نمونیا در این ولایت ضروری می باشد.

کلمات کلیدی: نمونیا، صحت طفل، DHIS2، روند های فصلی، پروان، افغانستان

Background

Pneumonia, clinically recognized as an acute lower respiratory tract infection, is a leading cause of morbidity and mortality among children under five years of age, particularly in low- and middle-income countries. It is a severe respiratory condition characterized by inflammation and accumulation of fluid or pus in the alveoli of the lungs, impairing oxygen exchange and potentially leading to life-threatening complications if left undiagnosed or untreated (1,2). Globally, pneumonia remains a critical public health concern. According to the World Health Organization (WHO), in 2019 alone, pneumonia caused approximately 740,180 deaths among children under five, representing 14% of all deaths in this age group. The highest burden was reported in South Asia and sub-Saharan Africa, where health systems often face challenges such as limited resources, delayed diagnosis, and restricted access to life-saving interventions (3,4). In the Eastern Mediterranean Region (EMR), pneumonia continues to contribute significantly to under-five mortality, highlighting the need for stronger prevention strategies and timely case management at both national and regional levels (5). In Afghanistan, pneumonia remains a significant contributor to morbidity and healthcare utilization, particularly among young children. According to WHO estimates, the country has consistently reported a high burden of pneumonia over recent years. In 2021, Afghanistan recorded more than 25,000 confirmed pneumonia cases, including 98 associated deaths, followed by 5,484 cases and approximately 300 deaths in 2022, and over 25,940 cases with 64 deaths in 2023, underscoring the persistent nature of the public health challenge (6,7). Several interrelated factors contribute to the high burden of disease, including widespread poverty, childhood malnutrition, low immunization coverage, limited access to essential health services, indoor air pollution, and delayed care-seeking behavior (8,9). A UNICEF report indicated that fewer than 60% of Afghan children with symptoms of acute respiratory infection were taken to a healthcare facility, revealing a substantial gap in timely medical care (10).

Several epidemiological studies conducted in Afghanistan have also emphasized the urgency of addressing these barriers, particularly in rural and underserved communities (11,12). Although pneumonia is recognized as one of the leading causes of childhood illness and death in Afghanistan, its distribution across time, location, and population remains insufficiently analyzed in many provinces. Parwan province, located in central Afghanistan, has consistently reported high numbers of pneumonia cases in recent years; however, limited analytical data are available to inform targeted interventions. Understanding the local epidemiological profile of pneumonia is essential for tailoring prevention and control strategies. Therefore, this study was conducted to analyze reported pneumonia cases in Parwan province between 2021 and 2023 by time, place, and person, generating evidence-based insights for public health action.

Methodology

Study Design: This study employed a descriptive cross-sectional design using secondary data extracted from the District Health Information System 2 (DHIS2) and Excel-based provincial health reports. DHIS2 is the official routine health information platform used by the Ministry of Public Health (MoPH) in Afghanistan to collect, manage, and analyze service delivery and disease surveillance data from health facilities nationwide. It is primarily utilized for monitoring health indicators and supporting planning and policy-making at both national and subnational levels.

Study Setting: The study was conducted in Parwan province, located in central Afghanistan. The province comprises both urban and rural populations and is served by various public health facilities, including Basic Health Centers (BHCs), Comprehensive Health Centers (CHCs), and District Hospitals. Due to its high altitude and distinct seasonal climate patterns, Parwan is considered a priority area for respiratory disease monitoring.

Study Period and Population: The study focused on pneumonia cases reported between January 2021 and September 2023. All cases recorded in the DHIS2 database under pneumonia diagnosis codes during this period were included. The data comprised both outpatient and inpatient cases reported by public health facilities. The dataset did not distinguish whether cases were part of routine surveillance or linked to outbreaks, as outbreak-specific tagging was not available. Nonetheless, no pneumonia outbreaks were officially declared in Parwan during the study period.

Case Definition: Pneumonia cases were identified based on the WHO standard case definitions, which include symptoms such as cough, fever, fast breathing, and chest indrawing, particularly among children under five years of age.

Data Analysis: Data cleaning and validation were conducted using Microsoft Excel 2021. Descriptive statistics, including frequencies, percentages, and rates, were applied to summarize the data by person (age, sex), place (district), and time (month, year). Visual tools such as line graphs, bar charts, and pie charts were used to illustrate the trends and distributions of pneumonia cases, hospital admissions, referrals, and deaths.

Ethical Considerations

Although the study used secondary, de-identified data, all ethical standards were maintained. In line with international research ethics guidelines, no personal identifiers were accessed. As the study did

not involve direct contact with human participants, formal Institutional Review Board (IRB) approval was not required. However, official permission to access and use the DHIS2 data was obtained from the Ministry of Public Health.

Results

Between January 2021 and September 2023, a total of 269,910 pneumonia cases were reported from Parwan province. Of these, 142,049 (53%) were females and 126,861 (47%) were males. District-wise distribution showed that Charikar reported the highest number of cases (78,274; 29%), followed by Bagram (56,681; 21%), Seya Gerd (32,389; 12%), Sorkh Parsa (26,991; 10%), and the remaining districts combined (75,575; 28%) (see Figure 2). In terms of annual distribution, 75,575 cases (28%) were reported in 2021, 118,760 cases (44%) in 2022, and 75,575 cases (28%) from January to September 2023. Monthly peaks were observed in December 2021 (12,485 cases), January 2022 (11,976), February 2022 (11,203), December 2022 (13,221), January 2023 (12,748), and February 2023 (11,997). However, as full-year data for 2023 are not available, drawing firm conclusions about annual trends for that year requires caution.

By age group, children under five years represented the majority of cases with 153,428 (57%), while individuals aged five years and above accounted for 116,482 cases (43%) (see Figure 3). The highest pneumonia-related mortality was reported in May 2022, with 481 deaths. Hospital admissions peaked in the same month with 1,305 admissions, followed by a second peak in January 2023 with 1,177 admissions.

Regarding patient flow, a total of 32,674 cases were referred in, while 14,228 cases were referred out during the study period. Referrals-in cases consistently outnumbered referred-out cases across all years and districts, indicating substantial reliance on referral services within the province.

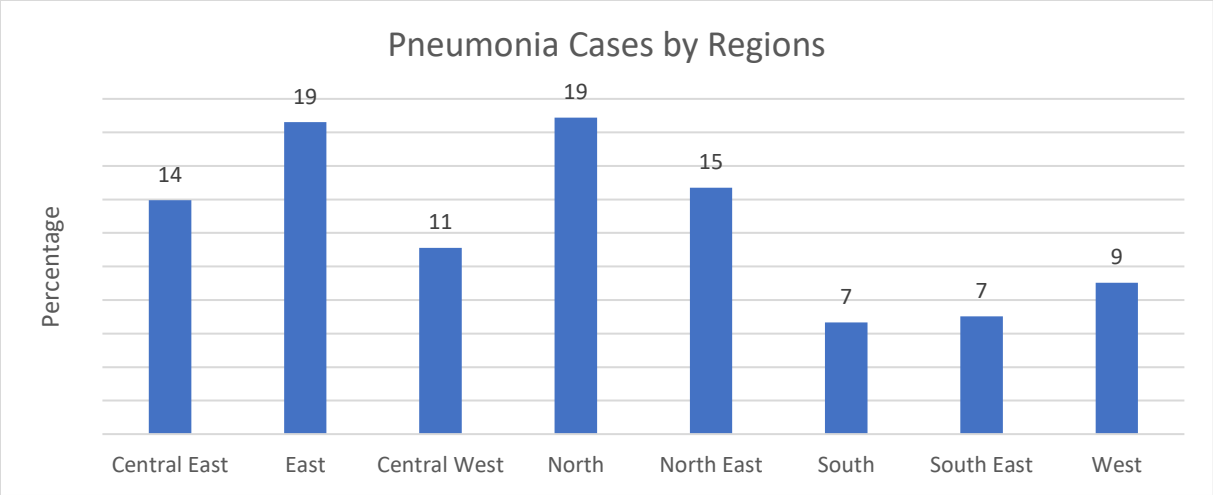

Figure 1. Geographic distribution of reported pneumonia cases by district in Parwan province (2021–2023). *This figure presents district-level data within Parwan province.*

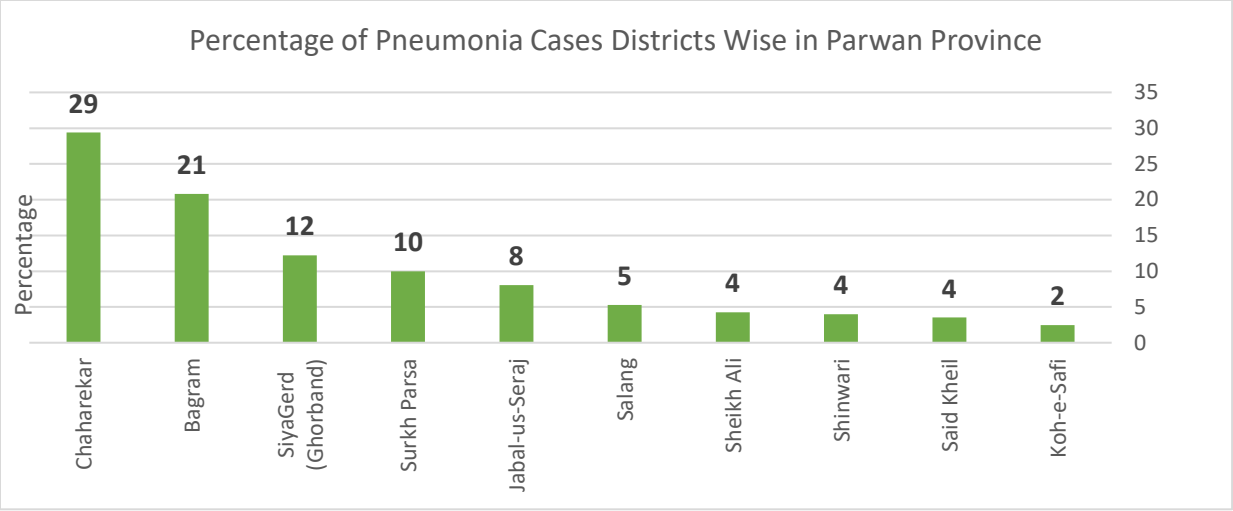

Figure 2. Proportion of pneumonia cases by district in Parwan province (2021–2023).
The bar chart highlights variation in disease burden across districts.

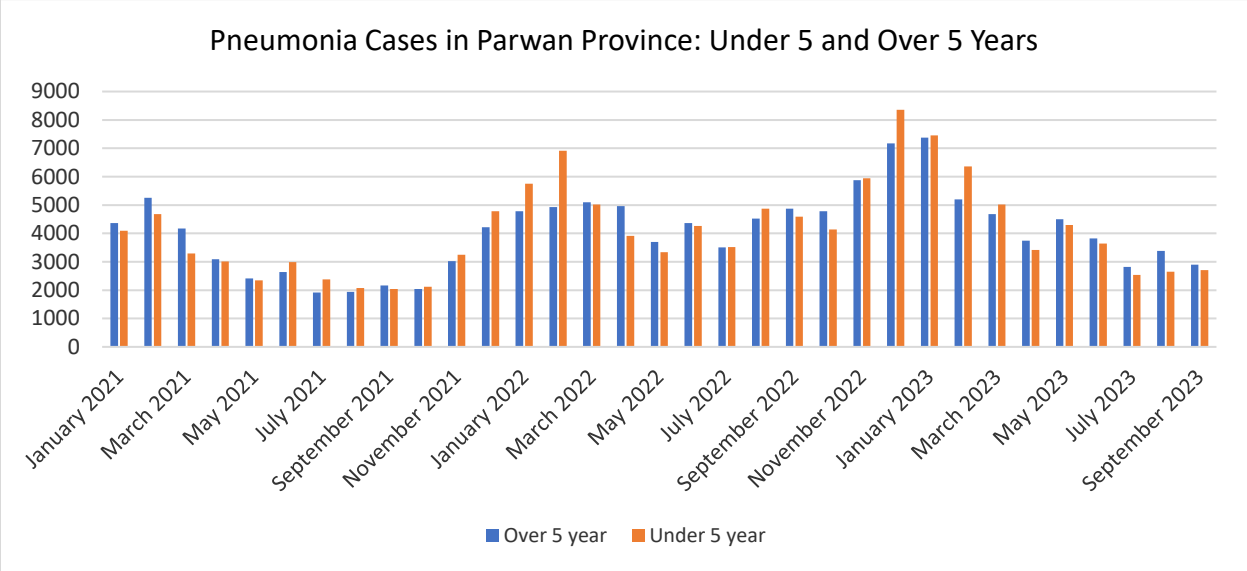

Figure 3. Age distribution of pneumonia cases in Parwan province (2021–2023).
This figure shows the relative burden among children under five versus individuals aged five and above.

Discussion

This study analyzed 269,910 pneumonia cases reported from Parwan province between January 2021 and September 2023, revealing a substantial disease burden, particularly among children under five years of age. This finding aligns with global data from the WHO, which identifies pneumonia as a leading cause of mortality in this age group worldwide (13). The seasonal peaks observed in December, January, and February are consistent with findings from India and Pakistan, where cold weather, poor air quality, and overcrowded living conditions have been associated with pneumonia surges (14,15). These results underscore the importance of seasonal preparedness, including the pre-positioning of antibiotics and oxygen supplies ahead of winter months. High case numbers reported

in Charikar and Bagram districts may reflect enhanced reporting mechanisms and better access to health facilities in these areas, rather than higher disease incidence (16). This emphasizes the need to strengthen surveillance and case detection in remote districts to ensure comprehensive and equitable disease monitoring. The mortality peak observed in May 2022 (481 deaths) may be attributed to delays in reporting, data entry backlogs, or sudden localized outbreaks—challenges commonly seen in resource-constrained health systems like that of Afghanistan (17). Such inconsistencies highlight the need for real-time data verification and continuous training of health personnel in accurate data management. Hospital admissions peaked in May 2022 and again in January 2023. Referral data—32,674 cases referred-in versus 14,228 referred-out—suggests a concentration of case management at secondary-level facilities. This trend aligns with WHO's recommendation to reinforce primary-level management through the Integrated Management of Childhood Illness (IMCI) strategy (18), which promotes early detection and treatment of pneumonia at both community and primary healthcare levels.

This study has several limitations. First, although DHIS2 is a valuable data source, it is prone to underreporting, data entry errors, and incomplete records, especially in rural areas. Second, the absence of data for the final quarter of 2023 limits a full-year analysis and may affect the interpretation of seasonal patterns. Third, the study relied exclusively on routine surveillance data and did not include clinical or laboratory confirmation of pneumonia cases.

Despite these limitations, the study provides actionable evidence that can support planning for high-incidence periods, guide resource allocation to high-burden districts, and strengthen community-level awareness. Additionally, the findings underscore the urgent need for improved data quality and evidence-based decision-making to reduce pneumonia-related morbidity and mortality. Future research should focus on examining socioeconomic risk factors, vaccination coverage, and care-seeking behavior to design more targeted and context-specific interventions, especially in fragile and post-conflict health systems such as Afghanistan's.

Conclusion

This study highlights a high reported burden of pneumonia in Parwan province, particularly among children under five years of age. Distinct seasonal patterns were observed, with consistent case surges during the winter months, suggesting a strong association with climatic conditions. Geographic disparities in reported cases are likely influenced by differences in healthcare service availability and reporting practices across districts. These findings underscore the need to strengthen primary healthcare delivery, especially in underserved areas, through improved community-based pneumonia management and enhanced facility preparedness during seasonal peaks. Strengthening surveillance systems in terms of both coverage and data quality is critical to ensure timely detection and response. Finally, the implementation of targeted public health strategies, including health education, vaccination outreach, and capacity building for healthcare workers, is recommended to reduce pneumonia-related morbidity and mortality in similar low-resource settings.

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Knowledge, Attitude and Practices of Breastfeeding among mothers visiting Indira Gandhi Hospital, Kabul, Afghanistan: a cross-sectional study

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Abstract

Background: Breastfeeding is a cost-effective public health strategy. Early Initiation of Breastfeeding (EIBf) & Exclusive Breastfeeding (EBf) for the first six months of age have many short- and long-term benefits for both the mother and infant. The purpose of the study was to assess knowledge, attitudes, and practices toward breastfeeding among lactating mothers visiting the Indira Gandhi hospital.

Methodology: This was a descriptive, hospital-based cross-sectional study of lactating mothers who had a child between 0 and 24 months of age. Convenience sampling was used to recruit mothers from the outpatient department of Indira Gandhi Hospital between November 2022-2023. A pre-tested structured questionnaire was administered. Data were analysed using descriptive statistics logistic regression model to examine associations between EIBF and EBF with socio-demographic and childbirth characteristics of women.

Results: Overall, all 422 mothers with their children participated in this study. Nearly 274(64.93%) of the women knew that the appropriate time for feeding colostrum is immediately after the birth (1st hour). Also, 52 (12.32%) mothers strongly agreed to give breast milk within one hour of delivery. 318(75.36%) of lactating mothers feed colostrum within the first hours of delivery. After adjusting for other variables, maternal age <30 years, maternal literacy, fewer than three children, female infant, and vaginal delivery were significantly associated with early initiation of breastfeeding. Mothers with fewer children were 1.9 times more likely to exclusively breastfeed.

Discussion: This study reveals high awareness of colostrum (99.5%) among mothers at Indira Gandhi Hospital, but a lower rate of early initiation of breastfeeding (62%). Multivariable analysis revealed that early initiation of breastfeeding (EIBF) was significantly associated with vaginal delivery, maternal literacy, younger age, and having a female infant, while lower parity (<3 children) was linked to reduced EIBF knowledge and practice. Exclusive breastfeeding (EBF) was more common among mothers with fewer children, but surprisingly less likely among younger and literate mothers, possibly due to work or lifestyle constraints. A major barrier was perceived insufficient milk supply, leading to early bottle feeding.

Conclusion: Despite good knowledge of breastfeeding benefits, early initiation and exclusive breastfeeding remain suboptimal. Barriers—such as cesarean delivery, lower maternal experience, and perceived milk insufficiency—limit optimal practices. Interventions should focus on strengthening health worker-led support during antenatal and postnatal care, especially for cesarean deliveries and mothers with limited family support, to improve breastfeeding outcomes. Establishing lactation services and enhancing family engagement are critical to improving breastfeeding practices. Future studies using advanced analyses are recommended to identify key predictors and evaluate targeted interventions.

Keywords: Breastfeeding; Knowledge, Attitude, Practice, Indra Gandhi

دانش، نگرش‌ها و عملکرد های تغذیه با شیر مادر، در میان مادران مراجعه کننده به شفاخانه ایندرا گاندی، کابل، افغانستان: یک مطالعه مقطعی

خلاصه

معرفی: تغذیه با شیر مادر به عنوان یک استراتیژی مقرون به صرفه برای بهبود وضعیت صحت عامه است. شروع شیردهی در ساعت اول پس از تولد و تغذیه خالص با شیر مادر در شش ماه اول زنده گی، فواید کوتاه مدت و بلند مدت زیادی برای هردو مادر و نوزاد دارد. هدف این مطالعه ارزیابی سطح دانش، نگرش و عملکرد مادران شیرده مراجعه کننده به شفاخانه ایندرا گاندی در مورد تغذیه با شیر مادر بود.

روش تحقیق: این یک مطالعه توصیفی، مبتنی بر شفاخانه و مقطعی که بر روی مادران شیرده دارای طفل بین ۰ تا ۲۴ ماه بود انجام شد. نمونه گیری بصورت در دسترس از بخش سراپای شفاخانه اندرا گاندی در فاصله زمانی نوامبر ۲۰۲۲ تا مارچ ۲۰۲۳ صورت گرفت. یک پرسشنامه ساختار یافته و پیش آزمون برای جمع آوری ارقام مورد استفاده قرار گرفت. ارقام با استفاده از احصایه توصیفی و آزمون ریگریسیون لجستیک تحلیل شدند و از حیث ارتباط بین شروع زود هنگام تغذیه با شیر مادر (EIBF) و تغذیه خالص با شیر مادر (EBF) با ویژگی‌های اجتماعی– دیموگرافیک و مربوط به زایمان زنان تجزیه و تحلیل شدند.

نتایج: در مجموع، ۴۲۲ مادر همراه با فرزندان شان در این مطالعه شرکت کردند. تقریباً ۲۷۴ نفر (۶۴,۹۳٪) از زنان می دانستند که زمان مناسب برای دادن فله بلافاصله پس از تولد (ساعت اول) است. همچنین ۵۲ نفر (۱۲,۳۲٪) از مادران به شدت موافق بودند که شیر مادر را در ساعت اول پس از زایمان بدهند. ۳۱۸ نفر (۷۵,۳۶٪) از مادران شیرده فله را در ساعت های اول پس از زایمان دادند. پس از تنظیم متغیرهای دیگر، سن مادر کمتر از ۳۰ سال، سواد مادر، تعداد فرزندان کمتر از سه تن، نوزاد دختر، و زایمان طبیعی با ($p < ۰,۰۰۱$) به طور معنا داری با شروع زودهنگام شیردهی ارتباط داشتند. مادران که تعداد کمتری فرزند داشتند ($p = ۰,۰۳۰$) به میزان ۱,۹ برابر بیشتر احتمال داشت که به طور خالص شیردهی کنند.

مناقشه: این مطالعه نشان می‌دهد که آگاهی مادران در مورد فله در شفاخانه اندرا گاندی بسیار بالا بوده (۹۹,۵٪)، اما میزان شروع زودهنگام شیر دهی ۶۲٪ بوده است. تحلیل چند متغیره نشان داد که شروع زودهنگام شیردهی به‌گونه‌ی معناداری با زایمان طبیعی، سواد مادر، سن کمتر و داشتن نوزاد دختر ارتباط دارد، در حالیکه تعداد کمتر فرزندان (<۳) با کاهش آگاهی و عملکرد تغذیه زود هنگام با شیرمادر ارتباط داشت. تغذیه خالص با شیر مادر (EBF) در میان مادرانی که فرزندان کمتری داشتند بیشتر بود، اما بطور تعجب آوری، احتمال تغذیه خالص با شیر مادر در میان مادران جوانتر و با سواد، کمتر بود. که احتمالاً به دلیل محدودیت های کاری یا سبک زندگی آنان می باشد. یکی از موانع اصلی، برداشت نادرست مادران از ناکافی بودن شیر آنان برای طفل شان بود که منجر به آغاز زود هنگام تغذیه با شیر های مصنوعی شده بود.

نتیجه گیری: علی رغم آگاهی خوب مادران در مورد فواید شیردهی، شروع زود هنگام شیر دهی و تغذیه خالص با شیر مادر هنوز در وضعیت مطلوب قرار ندارد. موانع کلیدی مانند زایمان سزارین، تجربه کمتر مادر و برداشت نادرست مادر از ناکافی بودن شیر اجرای عملکرد مطلوب شیردهی را محدود می کنند. مداخلات باید بر تقویت حمایت های ارائه شده توسط کارکنان صحی در مراقبت های قبل و پس از ولادت، به‌ویژه برای مادرانی که زایمان سزارین داشته اند یا از حمایت محدود خانواده برخوردارند، تمرکز کنند تا نتایج شیردهی بهبود یابد. ایجاد خدمات مشورتی مرتبط به عملکرد شیردهی و افزایش مشارکت خانواده در این زمینه، برای بهبود و ارتقای شیوه های شیردهی از اهمیت بالایی برخوردار است. مطالعات آینده با استفاده از تحلیل‌های پیشرفته توصیه می‌شوند تا عوامل کلیدی مؤثر شناسایی و مداخلات هدفمند مورد ارزیابی قرار گیرند.

واژه های کلیدی: شیردهی، دانش، نگرش، عملکرد، ایندرا گاندی

Background

Breastfeeding is a cost-effective and essential public health strategy that significantly reduces infant and child morbidity and mortality[1,2,3,4]. Breast milk is universally recognized as the ideal food for human infants[5]. Promoting breastfeeding knowledge among mothers can positively influence their attitudes and ultimately improve breastfeeding practices. Hence, lactating mothers must possess adequate knowledge and a positive attitude to ensure appropriate practices related to breastfeeding[2, 4].

In addition to benefits for the infant, breastfeeding also provides important advantages for mothers, including increased birth spacing, faster return to pre-pregnancy weight, reduced risks of breast and ovarian cancers, and potentially decreased risk of hip fractures and osteoporosis during the postmenopausal period[6].

Exclusive breastfeeding (EBF) has both short- and long-term benefits for both mother and infant[7]. In mothers, breastfeeding has been shown to decrease the frequency of hemorrhage, postpartum depression, breast cancer, ovarian and endometrial cancer, as well as facilitating weight loss [8].

As recommended by the World Health Organization (WHO), Nations Children's Fund (UNICEF), and the American Academy of Pediatrics, initiation of breastfeeding within the first hour after birth and exclusive breastfeeding for the first six months has many benefits to achieve optimal growth [9, 10, 11, 12]. Surah Baqarah, verse 233 of the Holy Quran mentions that, "And mothers should breastfeed their children for two complete years"[13]. The World Health Assembly (WHA) has set a global target to increase the rate of EBF for infants aged 0–6 months up to at least 50% between 2012–2025[14, 15].

The secondary analysis of the WHO Global report indicates that barriers to breastfeeding in low-income countries include cultural beliefs, education, and access to healthcare. Mothers' good knowledge and positive attitude play key roles in the process of breastfeeding [7]. Advocates of breastfeeding have observed a global decline in EBF behavior among nursing mothers[16].

According to a systematic review of 25 studies, Afghanistan and Bhutan rank the lowest, in D-grade, in terms of implementation of the policies and programs of the global strategy on breastfeeding, yet no published studies were identified concerning the factors and barriers from these two countries, highlighting an important research gap[17].

The 2013 National Nutrition Survey (NNS) in Afghanistan showed that 98.0% of newborns were breastfed. However, 69.4% of infants were breastfed for the first time within one hour of birth, while 89.9% of newborns started breastfeeding within one day after birth[18].

Breastfeeding has been accepted as the most vital intervention for reducing infant mortality and ensuring optimal growth and development of children[18]. According to the 2015 Afghanistan Demographic and Health Survey, breastfeeding practices and initiation of complementary foods are significant factors in the poor nutritional status of the children [19]. The purpose of the study was to assess the knowledge, attitudes, and practices toward breastfeeding among lactating mothers visiting the Indira Gandhi hospital in 2023.

Methodology

Study Design: This was a descriptive and analytical cross-sectional study conducted at Indira Gandhi Public Hospital in Kabul,

Afghanistan, between November 2022 and March 2023.

Study Setting: The study was carried out in the Outpatient Department (OPD) of Indira Gandhi Hospital, Kabul. This hospital is a key public health institution, particularly known for pediatric care. It is a 400-bed facility that provides essential medical services, including nutritional care for undernourished children. The hospital also serves as a referral center for maternal and child health services. It provides a wide range of services, including nutritional care for undernourished children.

Study Population: The target population included all lactating mothers with children aged 0 to 24 months who visited the OPD of Indira Gandhi Hospital during the study period.

Eligibility Criteria:

Inclusion Criterion:

- Lactating mothers with children aged 0–24 months recorded in the OPD register.
- Permanent residents of Kabul city.
- Mothers willing to provide informed consent.

Exclusion Criteria:

- Caregivers who were not biological mothers.
- Mothers are unwilling to participate in the study.
- Mothers of children with specific feeding issues (e.g., cleft palate, severely ill).
- Mothers whose child required urgent care, preventing participation in the interview.

Dependent and Independent Variables: The study assessed four primary outcomes: knowledge of early initiation of breastfeeding (EIBF), practice of EIBF, and exclusive breastfeeding (EBF). All dependent variables were binary and coded based on standard definitions. Exclusive breastfeeding was defined as feeding the infant only breast milk, with no other liquids or solids, for the first six months of life. Independent variables included a range of demographic and obstetric factors: maternal age, education level (of both parents), occupation, type of family (nuclear or extended), place of delivery, number of children, birth interval, birth order, infant gender, and mode of delivery. Each of these variables was recoded into a binary format for inclusion in logistic regression models.

Sample Size and Sampling Strategy: A total sample of 422 mothers was recruited using convenience sampling. The sample size was calculated using Epi Info version 7.2, assuming a 50% prevalence of exclusive breastfeeding, with a 95% confidence level, a 5% margin of error, and a 10% non-response rate. Eligible participants were approached consecutively from the OPD register until the target sample size was reached.

Data Collection Procedure: Data collection was conducted through face-to-face interviews using a structured and pre-tested questionnaire. The questionnaire consisted of closed-ended questions organized into several domains, including socio-demographic information, obstetric and child health history, knowledge and attitudes toward breastfeeding, and actual breastfeeding practices. The questionnaire was originally developed in English, translated into Dari, and then back-translated to ensure accuracy. A pilot test involving 20 mothers, who were not included in the main study, was conducted to confirm the clarity and reliability of the tool.

Data Quality Assurance: To ensure data quality, the first author conducted all

interviews personally. Completed questionnaires were reviewed immediately after each interview for completeness and consistency. Data were double-entered into Epi Info version 7.2 to reduce entry errors, and range, skip patterns, and logic checks were applied to enhance data integrity. Regular supervision and review were conducted throughout the data collection and entry phases.

Data Analysis

For data analysis, the cleaned dataset was exported from Epi Info and analyzed using SPSS version 26. Descriptive statistics, including frequencies, percentages, and means, were used to summarize the variables. Bivariate analysis was conducted to examine associations between independent variables and breastfeeding outcomes. Early Initiation of Breastfeeding (EIBf), defined as breastfeeding within one hour after birth, was the primary outcome variable and coded as a binary variable (1 = within one hour, 0 = after one hour) and Exclusive breastfeeding was defined as feeding the infant only breast milk, with no other liquids or solids, for the first six months of life. To identify independent predictors, multivariable logistic regression models were then applied. Adjusted odds ratios (AORs), 95% confidence intervals (CIs), and p-values were reported for each model. A significance level of $p < 0.05$ was used to determine statistical significance.

Handling of Missing Data

Missing data were handled using a list-wise deletion approach. Questionnaires with incomplete core responses were excluded entirely from the analysis. For otherwise complete questionnaires with occasional missing responses, listwise deletion was applied within the specific analysis.

Ethical Considerations

Ethical approval for the study was obtained from the Institutional Review Board (IRB), and formal permission was secured from the hospital authorities. Written informed consent was obtained from all participating mothers. Participation was entirely voluntary, and confidentiality was strictly maintained throughout the study.

Supplementary Material

- Full questionnaire attached as Supplementary File at the end of the manuscript.

Results/Findings

A total of 422 mothers with a child of two years of age or less participated in this study. Almost two-thirds of mothers (n=276; 65.4%) were illiterate. Almost two-thirds (n=270; 63.98%) of the mothers were aged below 30 years. The mean age for children was 16 months. The majority of mothers lived in urban areas (n=382; 90.52%).

Table 1 shows that around two-thirds (n=287; 68%) of mothers had ≥3 children, and 15% (n=64) were pregnant for the first time. Two-thirds of the study participants were from extended families.

The majority of children (n=389; 92.18%) were born in a hospital. The birth interval of (n=225; 63.32%) lactating mothers was less than 2 years.

Table 1:Socio-demographic characteristics of study participants (n=422)

Variables	Category	Frequency	%
Mother Education level(n=422)	Illiterate	276	65.40
	Primary	41	9.72
	Middle	44	10.43
	High school	49	11.61
	Above	12	2.84
Age of mother in years (n=422)	<30	270	63.98
	≥30	152	36.02
Child age in month(n=422)	0-6	72	17.06
	7-12	124	29.38
	13-24	226	53.55
Resident(n=422)	Urban	382	90.52
	Rural	40	9.48
Occupation(n=422)	House wife	413	97.87
	Employed	9	2.13
Husband educated(n=422)	Yes	242	57.35
	No	180	42.65
Sex of child(n=422)	Female	191	45.26
	Male	231	54.74
Type of family(n=422)	Nuclear	167	39.57
	Extended	255	60.43
Numbers of children(n=422)	<3	135	31.99
	≥3	287	68.01
Birth to the last babies(n=422)	1st baby	64	15.17
	2nd baby	76	18.01
	3rd baby	75	17.77
	4th baby	62	14.69
	Others	145	34.36

Knowledge of Mothers towards Breastfeeding

A total of (n= 66; 15.64%) women responded that colostrum is the first breast milk important for children's immunity. Additionally, (n=274; 64.93%) of the women knew that the appropriate time to feed colostrum is immediately after birth (within the first hour), while (n= 84; 19.91%) of the women reported initiating colostrum feeding after 24 hours."

Attitudes of Mothers towards Breastfeeding

The results show that (n=52; 12.32%) mothers strongly agreed, (n=333, 78.91%) toward giving breast milk within one hour of delivery.

The Practice of Mothers towards Breastfeeding

Approximately three-quarters of lactating mothers (318 of 422) (n = 318; 75.36%) reported feeding colostrum within the first hours of delivery. However, a majority (n = 324; 76.78%) also reported experiencing insufficient breast milk. Furthermore, 35.78% of infants under six months of age (n = 151) were bottle-fed.

The primary source of information about the importance of exclusive breastfeeding (EBF) was family members (n = 297; 70.38%).

Among those who did not practice EBF, the most frequently reported reason was insufficient milk production (n = 98; 23.22%), often associated with maternal illness.

Figure 1 highlights the myths and misconceptions of women regarding artificial feeding. (n=12; 2.84%) Women answered that breast milk is not enough to satisfy the baby.

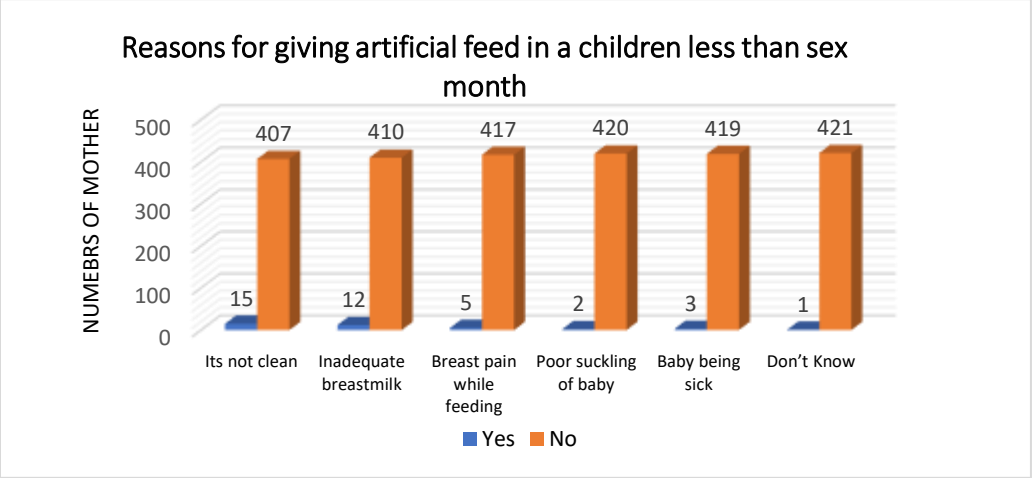

Figure 2 Represents about (n=420; 99.53 %) women have heard about colostrum, (n=297; 70.38%) from family, (n=81; 19.19%) from health worker, (n=14; 3.32%) from husband, (n=8; 2%) through media, (n=9; 2.13%) got from book and friends and (n=11; 2.61%) of women got to know about it from other sources and 10% of them did not know about colostrum feeding.

Also, the finding indicates **(n=**125; 29.62%) report that lack of breast milk is the main reason for stopping breastfeeding and giving artificial feed to the baby.

Comprehensive Report: Multivariable Logistic Regression Analysis of Breastfeeding Determinants (n = 422)

This report presents the results of a multivariable logistic regression analysis conducted to identify significant predictors of:

- Knowledge about Early Initiation of Breastfeeding (EIBF)
- Practice of Early Initiation of Breastfeeding (EIBF)
- Exclusive Breastfeeding (EBF)

All dependent variables were binary and coded according to predefined criteria. The sample consisted of 422 mothers, and the independent variables included demographic and childbirth-related factors.

After adjusting for other variables, maternal age <30 years (AOR = 1.97, 95% CI: 1.11, 3.49, p = 0.02), maternal literacy (AOR = 2.07, 95% CI: 1.12, 3.84, p = 0.02), fewer than three children (AOR = 0.37, 95% CI: 0.19, 0.72, p = 0.004), female infant (AOR = 2.44, 95% CI: 1.43, 4.16, p 0.001), and vaginal delivery (AOR = 7.91, 95% CI: 4.13, 15.17, p < 0.001) were significantly associated with early initiation of breastfeeding. "Mothers with fewer children (AOR = 1.89; 95% CI: 1.06–3.37; p = 0.030) were 1.9 times more likely to exclusively breastfeed, as detailed in Tables 2, 3, and 4, respectively."

Table 2. Determinants of Knowledge about Early Initiation of Breastfeeding (EIBF)

Significant Predictors (p < 0.05):

Predictor	Adjusted Odds Ratio (AOR)	95% CI	p-value
Number of children (<3)	0.55	[0.30, 1.00]	0.050

Interpretation: Mothers with fewer children were less likely to have accurate knowledge about EIBF, possibly due to inexperience.

Table 3. Determinants of Practice of Early Initiation of Breastfeeding (EIBF)

Significant Predictors (p < 0.05):

Predictor	Adjusted Odds Ratio (AOR)	95% CI	p-value
Mode of childbirth (Vaginal)	7.91	[4.13, 15.17]	<0.001
Gender of infant (Female)	2.44	[1.43, 4.16]	0.001
Number of children (<3)	0.37	[0.19, 0.72]	0.004
Maternal age (<30 years)	1.97	[1.11, 3.49]	0.020
Maternal education (Literate)	2.07	[1.12, 3.84]	0.021

Also, the Mode of delivery had the strongest effect, with mothers who delivered vaginally being over seven times more likely to initiate breastfeeding early compared to those who had cesarean sections. Mothers with female infants, those who were younger, and those who were literate were significantly more likely to initiate breastfeeding within the first hour. Conversely, mothers with fewer than three children were less likely to practice EIBF.

Table 4. Determinants of Exclusive Breastfeeding (EBF)

Significant Predictors (p < 0.05):

Predictor	Adjusted Odds Ratio (AOR)	95% CI	p-value
Maternal age (<30 years)	0.46	[0.29, 0.75]	0.002
Maternal education (Literate)	0.53	[0.32, 0.88]	0.013
Number of children (<3)	1.89	[1.06, 3.37]	0.030

In addition, maternal **age** and **education** show an inverse association with EBF: surprisingly, younger and literate mothers were **less likely** to sustain exclusive breastfeeding. This may suggest work-related or lifestyle barriers. However, having fewer children **(<3)** was positively associated with exclusive breastfeeding. Mothers with fewer children were **more likely** to practice EBF, possibly due to better individual attention and available resources.

Discussion

This study offers important insights into the breastfeeding knowledge, attitudes, and practices among mothers of children aged two years or less at Indira Gandhi Hospital. The high level of awareness about colostrum (99.53%) and its benefits suggests that breastfeeding education, primarily through family networks, has successfully reached most mothers. However, the discrepancy between awareness and actual early initiation of breastfeeding (EIBF), with only 62.07% practicing EIBF within one hour of birth, reveals a critical gap between knowledge and practice. This gap highlights the complexities influencing breastfeeding behaviors beyond awareness alone.

The results of the multivariable logistic regression analysis revealed several independent predictors of breastfeeding outcomes. Vaginal delivery was the most influential factor for early initiation of breastfeeding, with mothers who delivered vaginally being nearly eight times more likely to initiate breastfeeding within the first hour. This finding aligns with global evidence suggesting that cesarean sections can delay mother-infant contact and hinder early breastfeeding due to anesthesia effects, post-operative pain, and delayed recovery [20].

A notable barrier identified was the perception of insufficient breast milk supply, reported by

over 76% of mothers, which contributed to the early introduction of bottle feeding in 35.78% of infants under six months. This persistent misconception undermines exclusive breastfeeding practices and indicates an unmet need for practical breastfeeding support and counseling. The heavy reliance on family as the primary information source (70.38%) may contribute to the perpetuation of myths and highlights the importance of strengthening professional healthcare worker engagement to provide accurate, evidence-based guidance.

Infant gender also emerged as a significant determinant, with mothers of female infants more likely to practice EIBF. Although cultural preferences were not directly assessed, this finding may reflect gender-specific caregiving behaviors within the local context. Moreover, maternal literacy and younger maternal age (<30 years) were associated with a higher likelihood of EIBF, suggesting that educational exposure and generational differences may positively influence early breastfeeding practices.

Exclusive breastfeeding (EBF) was also influenced by maternal and household characteristics. In contrast to findings on EIBF, younger mothers (<30 years) and literate mothers were significantly less likely to exclusively breastfeed. These results may reflect work-related demands, lifestyle constraints, or exposure to mixed messaging in more educated and younger populations. However, mothers with fewer than three children were significantly more likely to practice exclusive breastfeeding, potentially due to more individualized time and resources for infant care.

Interestingly, mothers with fewer than three children were less likely to practice EIBF and less likely to possess accurate knowledge about EIBF. These findings suggest that maternal experience gained through multiple births may enhance both understanding and application of optimal breastfeeding practices.

Overall, this study reveals that improving breastfeeding outcomes requires multifaceted strategies addressing both knowledge and contextual barriers. Enhanced antenatal and postnatal breastfeeding counseling, particularly targeting mothers with cesarean deliveries alongside community-based education involving family members, could bridge the gap between awareness and practice. Moreover, establishing lactation support services to manage perceived milk insufficiency is essential.

Notable limitations of this study include its cross-sectional design, which precludes causal inference, and its urban, hospital-based sample, which may limit generalizability to rural or community-based populations. Self-reported data also pose potential for recall and social desirability biases. Additionally, the cross-sectional design restricts causal inferences, and self-reported data may be subject to recall bias.

Conclusion

This study demonstrates that while knowledge of breastfeeding benefits, particularly regarding colostrum, is high among mothers at Indira Gandhi Hospital, the translation of knowledge into practice—especially with regard to early initiation and exclusive breastfeeding—is suboptimal. Multivariable analysis identified several independent predictors of breastfeeding behaviors. Vaginal delivery, maternal literacy, younger age, and infant gender positively influenced early initiation of breastfeeding, while fewer children were associated with both lower EIBF practice and knowledge. In contrast, exclusive breastfeeding was more common among mothers with fewer children, but less likely among younger and literate mothers, potentially due to competing demands or sociocultural shifts.

Perceived insufficient milk supply remains a major barrier to EBF, underscoring the need for evidence-based counseling and lactation support. Interventions should focus on strengthening health professional-led breastfeeding education, particularly during the antenatal and immediate postnatal periods. Targeted support for mothers undergoing cesarean delivery and those from nuclear families may also be critical. Community-based initiatives that engage family members—given their strong influence on maternal practices—should be considered to promote sustained and informed breastfeeding behaviors.

Future research employing longitudinal designs and diverse community samples is recommended to further validate these findings and to evaluate the effectiveness of tailored interventions. Addressing both clinical and socio-contextual barriers is essential to improving breastfeeding outcomes and, by extension, infant health and nutrition in Afghanistan.

- **Vaginal childbirth** consistently predicted better practice of EIBF, indicating a need to support C-section mothers with targeted breastfeeding education.
- **Maternal education** had a dual role: it supported EIBF practice but reduced the likelihood of sustained EBF, possibly due to workforce re-entry pressures.
- **The gender of the infant** influenced practice, revealing a potential cultural bias.
- **Mothers with fewer children** may require more support and education around breastfeeding.
- Interventions should focus on providing additional support to the mothers with C-sections, Younger and first-time mothers, working or educated mothers, and Households with male infants to ensure equity in breastfeeding practices

Strengths of the Study

- This study will help in spreading knowledge, attitudes, and practices of breastfeeding, as well as be useful to educational practitioners, policy makers, and other stakeholders in the following ways.
- It was the first KAP study in the study setting.

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Descriptive study of Malaria Cases in Paktika Province, Afghanistan 2023

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Abstract

Background: Malaria is a severe and occasionally fatal tropical disease that is brought on by a parasite and spread by mosquitoes. Over 445,000 people are killed by it every year, of whom the majority are youngsters from Africa. Among developing countries, Afghanistan is still one of the endemic areas with Malaria cases and deaths, with a special focus on the eastern region. This study describes Malaria cases in Paktika province during 2023.

Methodology: A descriptive analysis of secondary data from DHIS2 based on MLIS, MLR, and MIAR reports was conducted in October 2023. Malaria data for Paktika province during 2023 were used in this study. Data was extracted, managed, and analyzed using MS Excel and Epi Info 7.2.1.

Results: A total number of 2196 malaria cases were reported, diagnosed, and treated during the first nine 9 months of 2023 in Paktika province. Cases were reported from different levels of community health workers and health facilities. From the total cases, Plasmodium Vivax was the most 1242 (56.5%). In addition, the study showed an increase in cases at the Katawaz region of Paktika, where the bed nets haven't been distributed for the last five years. The most affected district was Wazikhawa, which is the central district for Gomal, WoorMay, and Tarwee districts.

Conclusion: The study highlights the continued burden of malaria in an endemic province of southeastern Afghanistan, with evident variation in species distribution, geographic concentration, and seasonal trends. The findings emphasize the importance of sustained vector control, timely surveillance, and locally tailored interventions to effectively address transmission in high-risk areas.

Key words: Malaria, Paktika, Afghanistan

مطالعه توصیفی واقعات ملاریا در ولایت پکتیکا، افغانستان –۲۰۲۳

چکیده

پس منظر : ملاریا یک مریضی شدید و گاهی مرگ بار در مناطق گرم سیر است که توسط پرازیت ایجاد شده و از طریق پشه انتقال می یابد. این بیماری سالانه باعث مرگ بیش از ۴۴۵،۰۰۰ نفر در جهان می شود که اکثریت آنان کودکان در قاره آفریقا ه ستند. در میان ک شورهای در حال تو سعه، افغان ستان هنوز هم یکی از مناطق اندمیک برای ملاریا به شمار می رود، به‌ویژه در مناطق شرقی ک شور. این مطالعه به برر سی واقعات ملاریا در ولایت پکتیکا در سال ۲۰۲۳ می پردازد.

روش تحقیق: تحلیل توصیفی دیتای ثانوی اخذ شده از سیستم DHIS2، بر اساس گزارش های MLIS، MLR و MIAR در ماه اکتوبر ۲۰۲۳ انجام شـد. دیتا مربوط به واقعات ملاریا در ولایت پکتیکا در سـال ۲۰۲۳ اسـتخراج، تنظیم و با اسـتفاده از نرم افزارهای MS Excelو Epi Info 7.2.1 تحلیل گردید.

یافته‌ها: در جریان ۹ ماه نخست سال ۲۰۲۳، در مجموع ۲۱۹۶ واقعه ملاریا در ولایت پکتیکا گزارش، تشخیص و تداوی شده اند. واقعات از سـطوح مختلف کارمندان صـحی جامعه و مراکز صـحی به ثبت رسـیده اند. از میان این موارد، پلاسـمودیوم ویواکس (Plasmodium Vivax) با ۱۲۴۲ واقعه (۵۶,۵٪) بیشـترین نوعیت گزارش شـده بود. همچنان یافته ها نشـان می دهد که در منطقه کتواز (Katawaz) پکتیکا، واقعات ملاریا افزایش یافته، جایکه از پنج سال گذشته به این سو دست بند های محافظتی (مچ نماها) توزیع نشده اند. بیشترین واقعات در ولسوالی وازیخوا گزارش شده است که مرکز نواحی گومل، ورمی و تروی می باشد.

نتیجه‌گیری: این مطالعه شیوع مداوم مرض ملاریا را در یکی از ولایات اندمیک افغانستان برجسته می سازد، که در آن تفاوت های آشکار در توزیع گونه ها، تمرکز جغرافیایی و روند های فصلی دیده می‌شود. یافته ها بر اهمیت دوام کنترل ناقلین، نظارت به موقع، و مداخلات محلی شده جهت مبارزه مؤثر با انتقال مریضی در ساحات پرخطر تأکید دارند.

کلمات کلیدی: ملاریا، پکتیکا، افغانستان

Introduction

Malaria is a life-threatening infectious disease caused by protozoan parasites of the genus *Plasmodium*, which are transmitted to humans through the bites of infected female *Anopheles* mosquitoes. Among the five species known to infect humans, *Plasmodium falciparum* and *P. vivax* are the most common, with *P. falciparum* being responsible for the most severe forms and deaths, while *P. Vivax* is known for widespread transmission and recurrence[1].

Globally, malaria remains a major public health concern. According to the World Health Organization (WHO), an estimated 247 million malaria cases and 619,000 deaths occurred worldwide in 2021, with the African region accounting for 95% of all cases and 96% of deaths[2]. Despite a general decline in incidence since 2000 due to expanded control efforts such as insecticide-treated nets (ITNs) and rapid diagnostic tests (RDTs), recent years have seen a plateau and even resurgence in some regions due to conflict, climate change, and weakened health systems[2,3].

In South Asia, malaria persists as an endemic disease, especially in countries like Pakistan and India, where environmental conditions favor the breeding of vectors. For example, Pakistan reported over 3.4 million suspected malaria cases between January and August 2022, with *P. vivax* accounting for 77% and *P. falciparum* 23% of confirmed infections[4]. Climatic factors such as monsoon rains and flooding often contribute to seasonal outbreaks, particularly in underserved and rural areas[5].

In Afghanistan, malaria is among the top communicable diseases and constitutes a significant burden on the public health system. The Ministry of Public Health (MoPH) reports that over 60% of the Afghan population lives in malaria-endemic areas, with approximately 2 to 3 million cases reported annually[6]. The eastern and southeastern provinces—such as Nangarhar, Kunar, Laghman, and Paktika—report the highest disease burden due to favorable environmental conditions, including stagnant water, poor sanitation, and lack of access to preventive measures[7]. Surveillance data from the National Malaria and Leishmaniasis Control Program (NMLCP) show that *P. vivax* comprises around 80–90% of infections, while *P. falciparum* is increasingly observed in specific pockets and

is associated with complications and mortality[8].

Despite the national control efforts, limited district-level studies have been conducted to assess the localized distribution of malaria. In particular, Paktika province—bordering Pakistan and prone to natural disasters such as seasonal floods—has witnessed a steady increase in malaria cases in recent years. Field observations in 2023 reported unusual patterns of disease distribution in districts such as Wazikhwa and WorMamay, where bed net coverage is poor and flooding has disrupted environmental control. Understanding the epidemiological profile of malaria in this underserved region is crucial for informing localized prevention and response strategies.

Therefore, this study aims to describe the distribution of malaria cases in Paktika province during January to September 2023, using routine surveillance data. The findings will support evidence-based decision-making for future malaria control interventions at both provincial and national levels.

Methodology

A descriptive cross-sectional study was conducted to assess malaria cases in Paktika province from January 1 to September 30, 2023, using secondary data extracted from the national District Health Information System 2 (DHIS2). The data sources included the Malaria Line Listing System (MLIS), Monthly Laboratory Reports (MLR), and Monthly Integrated Activity Reports (MIAR), which are routinely compiled by public health facilities and community-based health workers. All reported malaria cases during the study period were included, without sampling, making the study population census-based. The data collection process was supervised by the provincial malaria surveillance team in collaboration with the National Malaria Control Program (NMCP). Key variables extracted and analyzed included demographic characteristics (age and sex), geographic location (district), date of symptom onset, diagnostic method (microscopy or rapid diagnostic test), and species of Plasmodium (P. vivax, P. falciparum, or mixed infection). The data were cleaned and validated before analysis. Microsoft Excel was used for data management, and Epi Info version 7.2.1 was used for statistical analysis. Descriptive statistics, including frequencies, percentages, and time-place-person distributions, were Generated to summarize the findings. Ethical approval was not required for this analysis as the study used de-identified secondary surveillance data.

Results

A total of 2,196 confirmed malaria cases were reported in Paktika province between January 1 and September 30, 2023. Of these, 1,242 cases (56.5%) were due to *Plasmodium vivax*, 913 cases (41.6%) were *Plasmodium falciparum*, and 41 cases (1.9%) were mixed infections. A total of 1,113 cases (50.7%) occurred in males and 1,083 cases (49.3%) in females. Regarding age distribution, 1,570 cases (71.5%) were reported among individuals aged five years and above, while 626 cases (28.5%) were in children under five. The highest number of cases was reported from Wazikhawa district (864 cases, 39.4%), followed by WorMamay (357 cases, 16.3%) and Gomal (298 cases, 13.6%). The lowest number of cases was recorded in the Yahya Khel district (16 cases, 0.7%). Monthly distribution showed the peak in September (524 cases, 23.9%) and the lowest in February (34 cases, 1.5%).

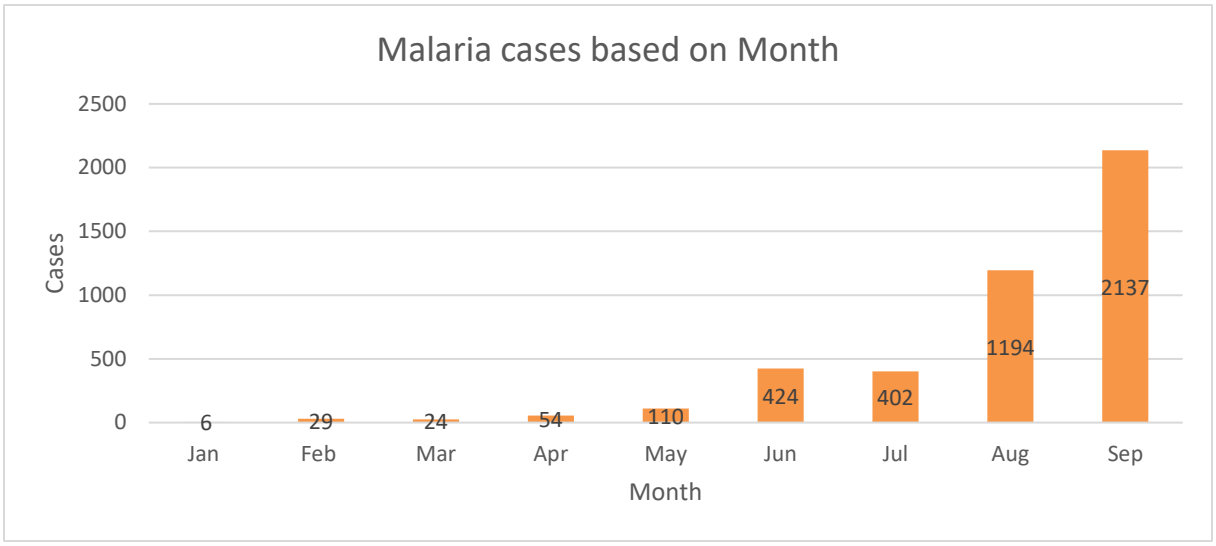

Figure 1: This figure shows the gradual increase in cases, based on data from provincial malaria and other vector-borne diseases. It was an unexpected rise in cases in the fall months, like August and September.
That's why they faced the major issue of control measures.

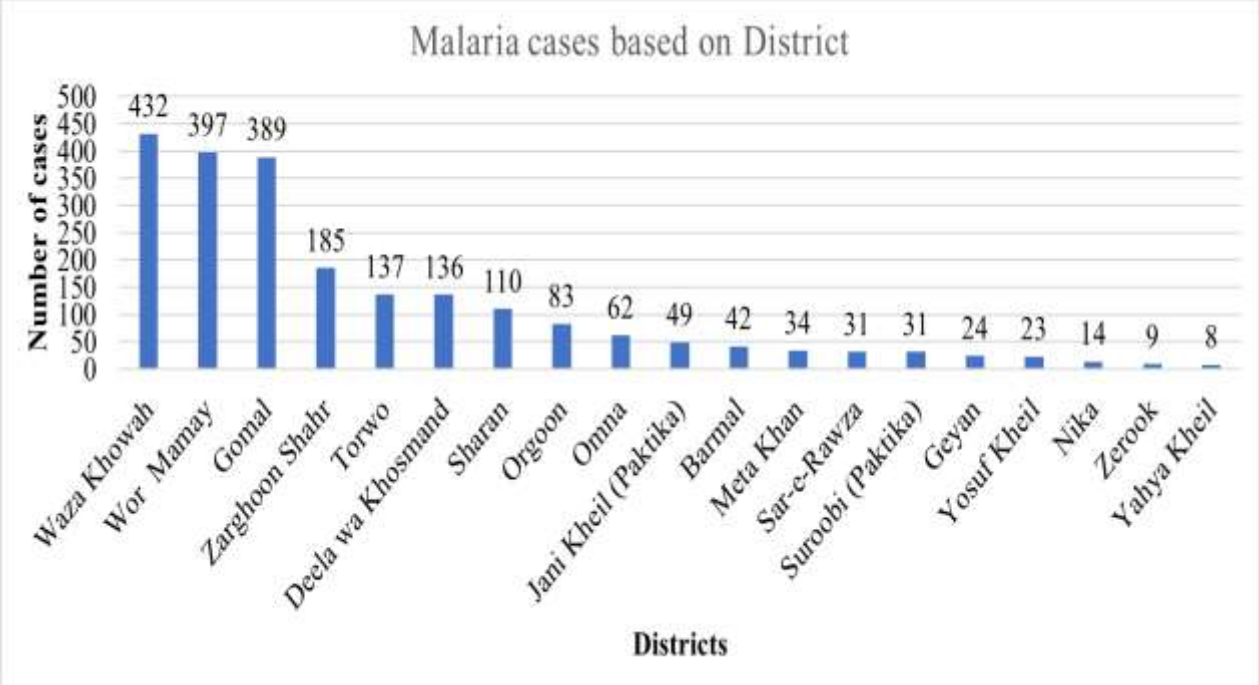

Figure 2: This table shows the rise in cases at Wazikhawa district with a total number of 864 cases during nine months, where the flood affected this region last year, the less affected area is YahyaKhel district with a total number of sixteen (16) cases during nine months.

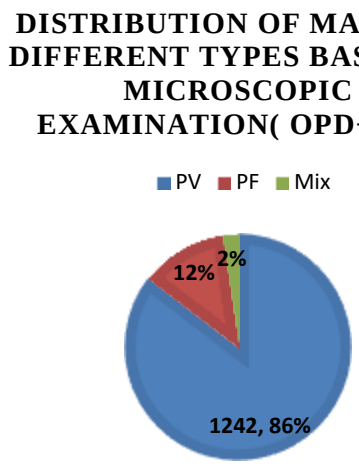

Figure 3: The above pie chart shows the great percentage of Plasmodium Vivax and a lower percentage of Mix based on Microscopic examination, compared to previous years

It also shows the increment in Plasmodium falciparum, which can be an alert for the health system because of its complications.

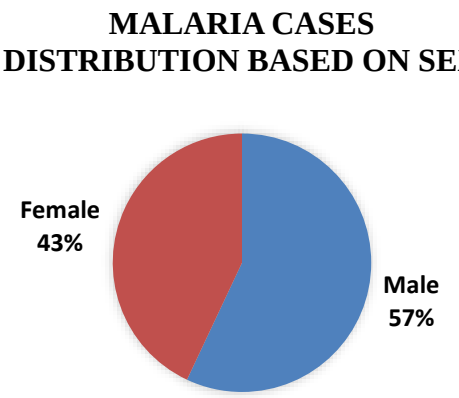

Figure 4: The above pie chart shows the same distribution of malaria cases in both sexes.

Discussion

This descriptive study provides an updated epidemiological overview of malaria cases in Paktika province during the first nine months of 2023, highlighting several key trends relevant to disease control efforts in Afghanistan. The predominance of *Plasmodium vivax* (56.5%) aligns with global and national trends, where *P. vivax* continues to be the most commonly reported species in Asia, and particularly in Afghanistan [1,2]. However, the relatively high proportion of *P. falciparum* (41.6%) observed in this study is noteworthy, as *P. falciparum* typically accounts for less than 20% of malaria cases in Afghanistan, but is responsible for most complications and mortality [2,3].

Globally, malaria remains a major health threat with over 247 million cases and 619,000 deaths in 2021, mostly in sub-Saharan Africa [2]. In South Asia, Pakistan and India also report high burdens, with over 3.4 million suspected cases in Pakistan in 2022 alone [4]. The observed monthly peak in September and August in our data contrasts with the typical summer peaks seen in many endemic countries, suggesting a local seasonal variation potentially driven by environmental changes, such as flooding, which is consistent with previous findings in flood-prone areas of Pakistan and Bangladesh [4,5].

Nationally, malaria transmission in Afghanistan is known to be seasonal and altitude-dependent, with most cases reported from eastern and southeastern provinces such as Nangarhar, Kunar, and Paktika [6,7]. This study confirms Paktika as a high-risk province, with Wazikhawa district alone contributing nearly 40% of all cases. The clustering of cases in the Katawaz region, where LLINs have not been distributed in the past five years, supports the link between vector control gaps and increased incidence. These findings reinforce previous programmatic observations by the National Malaria and Leishmaniasis Control Program [8].

The age distribution in this study revealed that 71.5% of malaria cases occurred among individuals aged ≥5 years, and 28.5% in children under five, which differs from many African settings where children under five account for the majority of malaria burden [2]. Additionally, the nearly equal distribution of cases between males and females (50.7% vs. 49.3%) suggests uniform exposure, likely due to similar outdoor activity patterns or environmental conditions.

Although this study is descriptive, its strengths lie in the use of comprehensive provincial surveillance data covering multiple districts and all facility and community levels. However, limitations include the absence of confirmatory molecular diagnostics, lack of entomological data, and potential underreporting from remote or insecure areas.

Conclusion

This study provides a comprehensive overview of malaria epidemiology in a high-burden province of southeastern Afghanistan. The findings confirm the continued dominance of Plasmodium vivax, while also indicating a notable circulation of Plasmodium falciparum, which has important clinical and programmatic implications. The geographic clustering of cases in specific districts, particularly in regions with limited access to preventive interventions, suggests that localized environmental and operational factors significantly influence transmission dynamics. The seasonal shift in peak case occurrence underscores the role of climate variability and ecological disruption in shaping malaria trends. Furthermore, the distribution of cases across all age groups and both sexes highlights the need for inclusive, community-wide prevention strategies. These results reinforce the urgency of targeted vector control measures, improved coverage of long-lasting insecticidal nets, strengthened surveillance systems, and adaptive planning to address emerging malaria risks in underserved areas.

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A Descriptive Study of Placental Abruption Cases at Malalai Hospital, Year 2023

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Abstract

Introduction: Placental abruption is a serious obstetric emergency characterized by the premature separation of the placenta from the uterine wall, typically after 20 weeks of gestation. It significantly contributes to maternal and fetal morbidity and mortality.

Objective: This study aimed to evaluate the prevalence, demographic characteristics, and clinical outcomes of patients diagnosed with placental abruption at Malalai Maternity Hospital during the year 1402 (March 2023–February 2024).

Methodology: A retrospective descriptive case series was conducted using hospital records. A total of 96 cases of placental abruption were identified among 39,478 obstetric admissions. Data were analyzed using Microsoft Excel.

Results: The incidence of placental abruption was 0.24%. Most affected women were aged 26–35 years (46.87%) and had a parity greater than five (72.91%). Over half of the cases occurred at term (≥37 weeks), and 54.16% required cesarean section. Hysterectomy was necessary in 8.33% of cases.

Conclusion: Although the prevalence of placental abruption was relatively low, its maternal and fetal complications were severe. Enhanced maternal care, early detection of risk factors, and timely obstetric interventions are helpful to reduce adverse outcomes.

Keywords: Placental abruption, obstetrics, Malalai Hospital, prevalence, maternal outcomes, Afghanistan

مطالعه توصیفی واقعات انفصال قبل از وقت پلاسنتا (جفت) در شفاخانه ملالی، سال ۱۴۰۲

خلاصه

مقدمه: انفصال قبل از وقت جفت یک حالت عاجل و جدی در نسایی و ولادی است که با جدا شدن ناگهانی و پیش از وقت جفت از دیواره رحم، معمولاً بعد از هفته بیستم حمل، مشخص می شود. این عارضه می تواند موجب پیامد های جدی برای مادر و جنین گردد.

هدف: این تحقیق با هدف بررسی شیوع، ویژگی های دموگرافیک و پیامدهای کلینیکی مریضان مبتلا به انفصال جفت در شفاخانه ملالی در سال ۱۴۰۲ (مارچ ۲۰۲۳ الی فبروری ۲۰۲۴) انجام شده است.

روش تحقیق: این مطالعه به صورت توصیفی گذشته نگر بوده و معلومات از کتاب راجستر رسمی مریضان جمع آوری گردیده است. از میان ۳۹،۴۷۸ واقعه ولادی، ۹۶ واقعه انفصال جفت شناسایی شد. تحلیل اطلاعات با استفاده از نرم‌افزار Excel انجام گردید.

نتایج: میزان بروز انفصال جفت ۰,۲۴٪ بود. بیشترین موارد در زنان ۲۶–۳۵ ساله (۴۶,۸۷٪) و با تعداد ولادات بیشتر از پنج (۷۲,۹۱٪) مشاهده شد. بیش از نیمی از واقعات در مرحله قبل از هفته ۳۷ام حاملگی رخ داده و ۵۴,۱۶٪ نیاز به ولادت سزارین داشتند. در ۸,۳۳٪ موارد، هیستریکتومی ضروری بود.

نتیجه گیری: با وجود شیوع نسبتاً پایین، انفصال جفت با عوارض شدید همراه است. تقویت به موقع مراقبت های مادر، شناسایی زودهنگام عوامل خطر و مداخلات عاجل ولادی برای کاهش پیامدهای ناگوار کمک کننده می باشند.

کلید واژه‌ها: انفصال جفت، ولادت، شفاخانه ملالی، شیوع، پیامدهای مادرانه، افغانستان

مقدمه

انفصال قبل از وقت جفت (Placental Abruption) یکی از حالت های نگران کننده در طب نسایی ولادی است که در آن، پلاسنتا به صورت کامل یا جزئی قبل از تولد نوزاد، معمولاً پس از هفته ۲۰ حاملگی، از محل ارتکازش در دیواره رحم جدا می شود. این پدیده منجر به قطع تبادل اکسیجن و مواد غذایی بین مادر و جنین گردیده و یک وضعیت اضراری تهدید کننده برای هر دو محسوب می شود. با توجه به اینکه انفصال جفت غالباً به صورت ناگهانی بروز می کند، تشخیص و مداخله به موقع در کاهش عوارض و مرگ ومیر نقش حیاتی دارد [۱]

براساس منابع علمی معتبر، شیوع این عارضه در میان زنان باردار حدود ۰,۶ الی ۱,۲ درصد گزارش شده است [۱]. علی رغم شیوع نسبتاً پایین، پیامد های آن می تواند شدید و گسترده باشد. مادران مبتلا ممکن است با خونریزی شدید پس از ولادت (Postpartum Hemorrhage)، ضرورت هیسترکتومی در زمان ولادت (Peripartum Hysterectomy)، آمبولی مایع آمنیوتیک، اختلالات شدید تنفسی، انعقاد منتشر داخل عروقی(DIC) ، نارسایی گرده و حتی مرگ مواجه شوند [۲،۳]. همچنین، این عارضه موجب افزایش قابل توجه در میزان مرگ و میر و ابتلا به امراض مادر و نوزاد در کوتاه مدت و درازمدت می گردد [۴].

علایم کلینیکی انفصال قبل از وقت جفت بسیار متغیر است و وابسته به شدت و وسعت انفصال آن می باشد. در حدود ٪۲۰ از موارد، علایم خفیف یا حتی غیرقابل مشاهده اند که تشخیص به موقع را دشوار می سازد. در موارد شدید، نشانه‌های نظیر درد شدید بطنی، حساسیت و سفتی رحم، خونریزی آشکار یا پنهان، رحم کوولر (Apoplexia Utero-Placenta)، انعقاد منتشر داخل عروقی (DIC) و شوک هایپوولیمیک ظاهر می‌شوند [۵،۶]. از نظر وضعیت جنینی، دیسترس جنینی در حدود ٪۵۰ موارد و مرگ داخل رحمی جنین در حدود ٪۱۵ گزارش شده است [۶].

با وجود پیشرفت های قابل توجه در طب مادر و جنین، علت دقیق انفصال زودرس جفت تاکنون به صورت کامل مشخص نشده است. با این حال، مطالعات اپیدمیولوژیک به شناسایی دو دسته از عوامل موثر اشاره دارند: عوامل مساعد کننده (Predisposing Factors) مانند فشار خون بلند مزمن، سوء مصرف مواد، تروما، تعدد ولادات، سن بالای مادر (بیش از ۴۰ سال) و اختلالات ساختاری جفت، و عوامل تشدید کننده (Precipitating Factors)مانند پارگی قبل از وقت پرده ها و انقباضات شدید رحمی [۳،۲].

با توجه به آغاز ناگهانی، علایم نامشخص و سرعت پیشرفت این وضعیت، آگاهی از عوامل خطر و استفاده از وسایل تشخیصی دقیق برای مدیریت به موقع این عارضه از اهمیت اساسی برخوردار است. فراهم سازی منابع معالجوی مناسب، تربیت نیروی انسانی متخصص و ارتقای ظرفیت مراکزصحی می تواند در کاهش خطرات مادری و جنینی ناشی از این وضعیت مؤثر واقع شود [۴،۵].

در کشورهای با درآمد پایین و متوسط (LMICs)، پیامد های انفصال جفت معمولاً شدیدتر است؛ زیرا محدودیت دسترسی به مراقبت های صحی با کیفیت، تشخیص های دیرهنگام و کمبود مداخلات به موقع از جمله چالش های رایج اند. به طور مثال، در مطالعه‌ای که در شفاخانه نسایی شیخ زاید در لره کانه، ایالت سند پاکستان انجام شد، از میان ۴۹۱۱ ولادت، ۱۴۱ مورد انفصال جفت گزارش گردید (شیوع ٪۲,۸۷). در این مطالعه، میزان مرگ ومیر مادری ٪۲۳,۴ و مرگ ومیر نوزادی ٪۴۰ بود، که اهمیت این عارضه را به ویژه در مناطق دور دست برجسته می سازد[۸]

در حالی که مطالعات متعددی در سطح بین المللی و منطقه در مورد انفصال جفت صورت گرفته اند، اما شواهد و ارقام علمی در مورد این عارضه در افغانستان بسیار محدود است. در یکی از گزارش های نادر، ناهید سخاور و همکاران (۲۰۱۱) به معرفی یک مورد از خونریزی شدید داخل بطنی در پی انفصال جفت در یک زن افغان ۲۸ ساله پرداختند که در اثر تروما و تأخیر در رسیدن به مرکز صحی رخ داده بود. این گزارش شدت این عارضه و چالش های موجود در سیستم صحی افغانستان را برجسته می سازد. با این حال، به جز این گزارش‌های پراکنده، تاکنون مطالعه جامعی در مورد انفصال جفت در شفاخانه های افغانستان انجام نشده است. این تحقیق با هدف پر کردن این خلأ انجام می شود.

هدف

- بررسی شیوع انفصال قبل از وقت پلاسنتا در شفاخانه ملالی در سال ۱۴۰۲.
- شناسایی ویژگی های دموگرافیک مریضان مبتلا به انفصال جفت.
- تحلیل روش های تداوی و نتایج مرتبط با این عارضه.

روش تحقیق

این تحقیق به شکل یک مطالعه توصیفی گذشته نگر (Retrospective Descriptive Case Series) طراحی گردیده است. محل اجرای تحقیق شفاخانه ملالی بوده و دوره زمانی شامل سال ۱۴۰۲ هجری شمسی می باشد. معلومات از

راجستر رسمی مریضان در بخش نسایی و ولادی جمع آوری شده است.

معیار شمول :(Inclusion Criteria) تمامی مریضانی که در سه ماهه سوم بارداری با تشخیص انفصال قبل وقت جفت (Placental Abruption)در سال ۱۴۰۲ بستری شده اند.

معیار خروج :(Exclusion Criteria) مریضانی که به دلیل خونریزی مهبلی ناشی از علل دیگر مانند Placenta Previa، Vasa Previa، یا ترومای مهبلی بستری شده اند، از مطالعه خارج گردیدند.

ارقام از طریق فورمه جمع آوری معلومات که شامل مشاهده مستقیم، بررسی دوسیه های طبی و راجسترهای موجود بود، استخراج گردیده اند. مجموعاً در طول سال مورد نظر، ۳۹،۴۷۸ مریض ولادی در این مرکز ثبت شده اند که در میان آن‌ها ۹۶ واقعه انفصال جفت شناسایی گردید.

معلومات جمع‌آوری شده پس از ثبت در نرم افزار Microsoft Excelتحلیل و آنالیز شدند.

نتایج و یافته ها

در جریان سال ۱۴۰۲، مجموعاً ۳۹،۴۷۸ مریض ولادی در بخش نسایی و ولادی شفاخانه ملالی داخل بستر گردیده اند که از آن جمله ۹۶ واقعه انفصال قبل از وقت جفت (Placental Abruption)ثبت شده است. این ارقام نشان دهنده میزان بروز تقریبی ۰,۲۴٪ این عارضه در میان کل مریضان ولادی است.

جدول ۱: فیصدی واقعات انفصال جفت نسبت به مجموع مریضان داخل بستر

کتگوری	تعداد	فیصدی
واقعات انفصال جفت	۹۶	**۰,۲۴٪**
سایر واقعات ولادی	۳۹۳۸۲	**۹۹,۷۶٪**
مجموع	۳۹۴۷۸	**۱۰۰٪**

میزان بروز انفصال جفت در این مطالعه نسبتاً پایین (۰,۲۴٪) بوده، اما با توجه به پیامدهای شدید آن، نیاز به توجه جدی دارد. احتمالاً دلایل این میزان پایین تر می تواند به کیفیت ثبت اطلاعات، محدودیت های تشخیصی یا فقدان مداخله به موقع دراین شفاخانه باشد.

جدول ۲: توزیع واقعات انفصال جفت بر اساس گروه‌های سنی

گروه سنی (سال)	تعداد واقعات	فیصدی
۱۸–۲۵	۱۹	**۱۹,۷۹٪**
۲۶–۳۵	۴۵	**۴۶,۸۷٪**
۳۶–۴۵	۳۲	**۳۳,۳۳٪**
مجموع	۹۶	**۱۰۰٪**

بیشترین موارد انفصال جفت در گروه سنی ۲۶–۳۵ سال مشاهده شده است، که با دوره فعال باروری زنان مطابقت دارد. اما درصد قابل توجهی (۳۳,۳۳٪) نیز در گروه بالاتر از ۳۵ سال گزارش شده که با مطالعات جهانی در مورد افزایش خطر با سن بالای مادر همخوانی دارد. سن بالای مادر با تغییرات ساختاری در رگ های جفتی و افزایش خطر فشار خون مرتبط است، که می تواند زمینه ساز انفصال جفت گردد.

جدول ۳: توزیع واقعات بر اساس Parity (تعداد ولادات قبلی)

Parity	تعداد	فیصدی
Prime Parous	۱۰	**۱۰,۴۱٪**
۱–۵ ولادت	۱۶	**۱۶,۶۶٪**
بیشتر از ۵ ولادت	۷۰	**۷۲,۹۱٪**
مجموع	۹۶	**۱۰۰٪**

افزایش پریتی به طور واضح با بروز بیشتر انفصال جفت مرتبط بوده است. زنانی که بیش از پنج ولادت قبلی داشته اند، در معرض بیشترین خطر قرار داشتند. این یافته با مطالعات همخوانی دارد که نشان داده اند که کشیدگی مکرر رحم، آسیب های میکروسکوپی به جدار داخلی رحم، و نوسانات هورمونی مکرر در زنان که چندین ولادت داشته اند می تواند باعث تضعیف محل اتصال جفت و در نتیجه انفصال آن شود.

جدول ۴: توزیع واقعات بر اساس سن حملی (Gestational Age)

سن حمل (هفته)	تعداد	فیصدی
۲۸–۳۲	۱۶	**۱۶,۶۶٪**
۳۳–۳۶	۳۰	**۳۱,۲۵٪**
۳۷–۴۲	۵۰	**۵۲,۰۸٪**
مجموع	۹۶	**۱۰۰٪**

بیش از نیمی از موارد در مرحله ترم حاملگی (۳۷ هفته یا بیشتر) رخ داده اند. این امر می تواند با فشارهای فیزیکی بیشتر در اواخر بارداری، افزایش حساسیت رحم و تغییرات همودینامیک مرتبط باشد.

هرچند موارد در نیمه سوم بارداری قابل انتظار است، وجود ٪۴۸ موارد در محدوده پیش از ترم (قبل از ۳۷ هفته) نگرانی هایی در خصوص ولادت قبل از وقت و پیامد های نوزادی را افزایش می دهد.

جدول ۵: نتایج تداوی مریضان باAbruption Placenta

نوع تداوی	تعداد	فیصدی
ولادت نارمل مهبلی	۲۰	**۲۰,۸۳٪**
ولادت کمکی (ابزار)	۱۶	**۱۶,۶۶٪**
ولادت به روش (سیزارین)	۵۲	**۵٤,۱٦٪**
هستریکتومی	۸	**۸,۳۳٪**
مجموع	۹۶	**۱۰۰٪**

نیمی از مریضان نیاز به ولادت به روش سیزارین داشتند، که نشان دهنده شدت بالای عارضه و نیاز فوری به ختم حاملگی می باشد. ٪۸,۳۳ مریضان تحت عمل هستریکتومی قرار گرفتند که نشان دهنده خونریزی غیر قابل کنترول و خطر برای حیات مادر است. تنها حدود یک پنجم موارد توانستند ولادت نارمل داشته باشند، که نشان دهنده پیچیدگی و وخامت کلینیکی این عارضه است.

مناقشه

مطالعه حاضر که به صورت گذشته نگر در شفاخانه نسایی و ولادی ملالی در سال ۱۴۰۲ انجام شد، با هدف بررسی خصوصیات دموگرافیک و پیامدهای تداوی مریضان مبتلا به Abruption Placentaصورت گرفت. یافته های این تحقیق با چندین مطالعه بین المللی مقایسه گردیده است.

شیوع Abruption Placenta در این تحقیق ٪۰,۲۴ گزارش گردید، که نسبت به تحقیقات مشابه در دیگر کشورها مانند هند [۹] با میزان ٪۰,۴۶، امارات متحده عربی [۱۰] با ٪۰,۶۱، و پاکستان [۱۱] با ٪۲,۸۷ پایین تر می باشد. تفاوت در شیوع احتمالاً به تفاوت در سیستم ثبت واقعات، کیفیت مراقبت های قبل از ولادت و دسترسی به خدمات صحی مرتبط است.

در تحلیل دموگرافیک، بیشترین واقعات Abruption در گروه سنی ۲۶–۳۵ ساله دیده شد (٪۴۶,۸۷۵)، که با یافته های تحقیق در دوبی [۱۰] و پاکستان [۱۱] همخوانی دارد. این محدوده سنی دوره فعال باروری بوده و احتمال مواجهه با فکتورهای خطر در این گروه بیشتر است.

در بررسی Parity ، بیشترین واقعات در زنان با Parity بالاتر از ۵ ثبت گردیده‌است (٪۷۲,۹۱)، که مطابق با یافته‌های Siddique et al. (2021) و Soomro et al. (2019) می باشد. افزایش Parity می تواند باعث تغییرات ساختاری در رحم گردد که خود زمینه ساز انفصال قبل از وقت جفت می شود.

از نظر سن حملی، اکثر واقعات بین ۳۷–۴۲ هفته اتفاق افتاده (٪۵۲,۰۸). این یافته با تحقیق Borah et al. (2013) و Shabnam et al. (2020) قابل مقایسه است. با این حال، تحقیقات دیگر مانند Mehta et al. (2021) و Siddique et al. (2021) گزارش داده‌اند که میزان قابل توجهی از Abruptionقبل از ۳۲ هفته بروز می نماید که بر اهمیت نظارت دقیق در سه ماهه سوم حاملگی تأکید می نماید.

روش ولادت در اکثریت موارد سزارین بود (٪۵۴,۱۶)، در حالی که ٪۲۰,۸۳ ولادت طبیعی و ٪۱۶,۶۶ ولادت کمکی انجام شده است. این ارقام مشابه تحقیقات Shabnam et al. (2020) با ٪۷۸ سزارین و Siddique et al. (2021) با ٪۴۲ می باشند. تصمیم گیری سریع برای ولادت، به خصوص در موارد شدید، حیاتی است تا از خطرات جدی مانند مرگ جنین یا هیستریکتومی جلوگیری گردد.

در تحقیق ما، ۸ مریض (٪۸,۳۳) هیستریکتومی شدند که نشان دهنده شدت خونریزی و نیاز به مداخله عاجل می باشد. مطالعه Soomro et al. (2019) نیز میزان بالای خونریزی بعد از ولادت و نیاز به انتقال خون را گزارش نموده است.

تحقیق Mehta et al. (2021) به وضوح نشان می دهد که مداخله زودهنگام در کاهش خطر مرگ مادری و جنینی بسیار مؤثر است. یافته های تحقیق ما نیز این نکته را تأیید می نماید که فراهم سازی مراقبت به موقع، سیستم انتقال مؤثر، آگاهی دهی به خانم ها و توانمند سازی مراکز ولادی، می تواند نتایج نامطلوب را کاهش دهد.

با آن که شیوع Abruption Placenta نسبتاً پایین است، اما پیامدهای آن برای مادر و جنین جدی و تهدید کننده می باشد. نتایج تحقیق حاضر مشابه با مطالعات جهانی بوده و بر اهمیت شناسایی فکتورهای خطر، مراقبت های قبل از ولادت و تداوی مؤثر تأکید می نماید. تقویت ظرفیت مراکز صحی و فراهم سازی امکانات تخصصی ولادی و نوزادی نقش عمده‌ای در کاهش مرگ ومیر دارد.

نتیجه گیری

مطالعه حاضر نشان داد که شیوع انفصال قبل از وقت جفت در شفاخانه ملالی در سال ۱۴۰۲، هرچند پایین (۰,۲۴٪) است، اما پیامدهای جدی برای مادر و نوزاد به همراه دارد. بیشتر موارد در زنان با سن ۲۶–۳۵ سال و با پریتی بالای ۵ گزارش شد که با یافته های بین‌المللی همخوانی دارد. درصد بالای ولادت به روش سزارین و میزان هیستریکتومی نشان دهنده شدت بالای این عارضه است. بهبود ثبت اطلاعات، تشخیص زودهنگام و مراقبت های به موقع می تواند به کاهش عوارض و بهبود نتایج کمک کند.

پیشنهادات

۱. بهبود سیستم ثبت و نگهداری دقیق اطلاعات مریضان برای تحلیل بهتر و پیشگیری مؤثرتر.
۲. تقویت ظرفیت مراکز صحی برای انجام سریع ولادت سزارین و مدیریت خونریزی‌های شدید
۳. توسعه سیستم ارجاع و انتقال مریضان جهت دریافت مراقبت های تخصصی به موقع.
۴. انجام مطالعات بیشتر برای شناخت بهتر عوامل خطر و راهکارهای پیشگیری

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Descriptive Study of Acute Flaccid Paralysis (AFP) Cases in Helmand Province, Afghanistan, from 2020-2022

Authors

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Abstract

Background: Globally, Poliomyelitis is a public health concern, being endemic in Afghanistan and Pakistan. The World Health Organization has pledged to make the world polio-free by implementing the polio vaccine and detection of AFP new cases based on its four key strategies. There are AFP cases reported from all provinces of Afghanistan. This study describes the AFP cases during 2020 and 2022 in Helmand province.

Methodology: A descriptive study was conducted by analyzing secondary data from the National Expanded Program on Immunization (NEPI) and AFP surveillance through Epi Info 7.2.1 and MS Excel. Helmand AFP data from 2020 to 2022 were used in this study. AFP cases of three years (2020-2022) were analyzed. Frequencies and percentages were calculated, and means, tables, and graphs were provided accordingly.

Results: Totally, 986 AFP cases were reported from 2020 to 2022 in Helmand province. The number of reported cases increased gradually from 246 cases (24.9%) in 2020 to 313 cases (31.7%) in 2021 and 427 (43.3%) in 2022. Out of all cases, 551 (56%) were male, and 435 (44%) were female. The mean age in months was 45.94. In most cases, 951 (96%) have been reported with fever. Guillain-Barre syndrome (GBS), monoplegia, Diplegia, and Cauda Equina syndrome were the most common causes of AFP-reported cases. In many cases, 227 (23%) were reported from Nahr-e-Saraj district, and the least number of cases, 5 (0.50%), were reported from Deh-e-Shu district.

Conclusion: AFP surveillance case detection shows successful improvements over the previous years, with no positive polio case reported. AFP cases were high among males, and most of the cases were reported from the Nahr-r-Saraj district. AFP surveillance system strengthening, raising awareness, and polio vaccination efforts are recommended through this study.

Keywords: AFP, Polio, Helmand, Afghanistan.

مطالعه توصیفی واقعات فلج شل حاد (AFP) در ولایت هلمند، افغانستان (۲۰۲۰–۲۰۲۲)

چکیده

پس منظر: پولیو (فلج اطفال) به عنوان یک نگرانی عمده صحت عامه در سطح جهانی شناخته می شود و هنوز هم در کشور های افغانستان و پاکستان بومی باقی مانده است. سازمان صحی جهان متعهد شده است تا از طریق تطبیق واکسین پولیو و شناسایی واقعات جدید فلج شل حاد (AFP) بر اساس چهار استراتیژی کلیدی خود، جهان را از پولیو عاری سازد. واقعات AFP از تمام ولایات افغانستان گزارش شده اند. این مطالعه، واقعات AFP را در ولایت هلمند طی سال های ۲۰۲۰ تا ۲۰۲۲ توصیف می نماید.

روش تحقیق: این یک مطالعه توصـــیفی اســـت که با تحلیل دیتا های ثانوی برنامه توســـعه یافته ملی معافیت (NEPI) و نظارت بر AFP با استفاده از نرم‌افزارهای Epi Info نسخه ۷.۲.۱ و مایکروسافت اکسل انجام شده است. در این تحقیق از دیتای AFP ولایت هلمند از سال های ۲۰۲۰ تا ۲۰۲۲ استفاده شده است. واقعات سه ساله AFP (۲۰۲۰ تا ۲۰۲۲) تحلیل گردیده اند. ارقام، فیصدی ها، اوسط ها، جدول ها و گراف ها محاسبه و ارایه شده اند.

نتایج: در مجموع، ۹۸۶ واقعه AFP طی سال های ۲۰۲۰ تا ۲۰۲۲ در ولایت هلمند گزارش شده اند. تعداد واقعات گزارش شده به‌گونه تدریجی افزایش یافته است: از ۲۴۶ واقعه (۲۴,۹٪) در سال ۲۰۲۰ به ۳۱۳ واقعه (۳۱,۷٪) در سال ۲۰۲۱ و ۴۲۷ واقعه (۴۳,۳٪) در سال ۲۰۲۲. از مجموع واقعات، ۵۵۱ واقعه (۵۶٪) مذکر و ۴۳۵ واقعه (۴۴٪) مؤنث بودند. او سط سن واقعات ۴۵,۹۴ ماه بوده ا ست. اکثر واقعات یعنی ۹۵۱ واقعه (۹۶٪) با تب گزارش شده اند. سندروم گیلن باره (GBS)، مونولیژیا، دای پلیژیا و سندروم کودا اکینا از شایع ترین عوامل واقعات AFP بودند. بیشترین واقعات یعنی ۲۲۷ واقعه (۲۳٪) از ولسوالی نهرسراج گزارش شده و کمترین واقعات یعنی ۵ واقعه (۰,۵٪) از ولسوالی ده شو به ثبت رسیده اند.

نتیجه‌گیری: نظارت بر واقعات AFP ن شان‌دهنده پی شرفت های موفقانه در مقای سه با سال های گذ شته بوده، چنانچه هیچ واقعه مثبت پولیو گزارش ن شده ا ست. واقعات AFP در میان مردان بی شتر بوده و بی شترین واقعات از ول سوالی نهر سراج گزارش شده اند. این مطالعه، بر تقویت سیستم نظارت AFP، بلند بردن سطح آگاهی عامه و تلاش های بیشتر برای تطبیق واکسین پولیو تأکید می نماید.

کلمات کلیدی: AFP، پولیو، هلمند، افغانستان.

Background:

Polio, commonly known as polio, is a highly infectious viral disease caused by the poliovirus, primarily affecting children under the age of five. It invades the nervous system and can result in permanent paralysis or even death within hours. Transmission mainly occurs through the fecal-oral route, especially in areas with inadequate sanitation [1]. Although there is no cure for polio, it is preventable through safe and effective vaccination [2].

Global efforts to eradicate polio began in 1988 with the establishment of the Global Polio Eradication Initiative (GPEI), which has led to a reduction of over 99% in cases worldwide [3]. The GPEI's strategy consists of four main pillars:

1. Routine immunization aims to maintain high levels of population immunity.
2. Supplementary immunization activities (SIAs) to cover missed children in high-risk areas.
3. Acute flaccid paralysis (AFP) surveillance for early detection of polio.
4. Outbreak response to contain and stop virus transmission [4].

Despite these efforts, Afghanistan remains one of only two countries where wild poliovirus continues to circulate [5]. Persistent transmission in specific regions is fueled by several factors, including insecurity, vaccine hesitancy, misinformation, and inaccessibility of certain populations [6]. While national-level data are routinely collected, granular, subnational analysis of polio case trends and distributions remains limited.

What remains unclear is how these cases are distributed temporally and geographically, particularly at the provincial level, and what demographic patterns exist among reported cases. Understanding these elements is critical for more targeted and effective interventions. This study aims to describe the temporal and geographical distribution and demographic characteristics of confirmed polio cases in Afghanistan from 2020 to 2022.

Methodology

This was a descriptive epidemiological study conducted to analyze Acute Flaccid Paralysis (AFP) cases in Helmand Province, Afghanistan, from January 2020 to December 2022. The study aimed to describe the temporal trends, geographic distribution, and demographic characteristics of reported AFP cases.

Study Setting: Helmand is one of the southern provinces of Afghanistan, characterized by a large, dispersed rural population and challenges in healthcare access due to insecurity and limited infrastructure.

Study and Target Population: The target population consisted of children under the age of 15 years who were reported as AFP cases during the study period. The analysis covered all reported AFP cases submitted through the National AFP Surveillance System.

Sample and Sampling Strategy: All 986 AFP cases reported from Helmand province over the three years were included in the analysis. Since the study is descriptive and based on secondary surveillance data, no sampling technique was applied.

Data Collection: Secondary data were obtained from the National Expanded Program on Immunization (NEPI) and the World Health Organization (WHO) surveillance database. The data included variables such as age, gender, district, date of onset, and clinical features of reported AFP cases.

Data Analysis: Data were cleaned and analyzed using Epi Info 7.2.1 and MS Excel. Descriptive statistics were computed, including frequencies, percentages, means, medians, modes, range, minimum, and maximum values. Data visualization was performed using tables and charts to display time trends and the geographic distribution of cases.

Ethical Considerations

This study utilized anonymized, publicly available secondary data with no direct involvement of human subjects. Approval for data access was obtained from the National EPI program. Confidentiality and privacy of all cases were strictly maintained by ethical standards.

Results

Totally, 986 AFP cases were reported from 2020 to 2022 in Helmand province. The number of reported cases increased gradually from 246 cases (24.9%) in 2020 to 313 cases (31.7%) in 2021 and 427 (43.3%) in 2022. Out of all cases, 539 (55%) were male, and 447 (45%) were female. The mean age in months was 45.94. In most cases, 951 (96%) have been reported with fever. Guillain-Barre syndrome (GBS), monoplegia, Diplegia, and Cauda Equina syndrome were the most common causes of AFP-reported cases. In many cases, 227 (23%) were reported from Nahr-e-Saraj district, and the least number of cases, 5 (0.50%), were reported from Deh-e-Shu district.

Trend by Month and Year: Figure 1 shows the trend of reported AFP cases over the three years. The number of cases was highest during the first half of 2020, with a gradual decline observed through 2021 and 2022. Peaks occurred in May–July 2020 and July 2022.

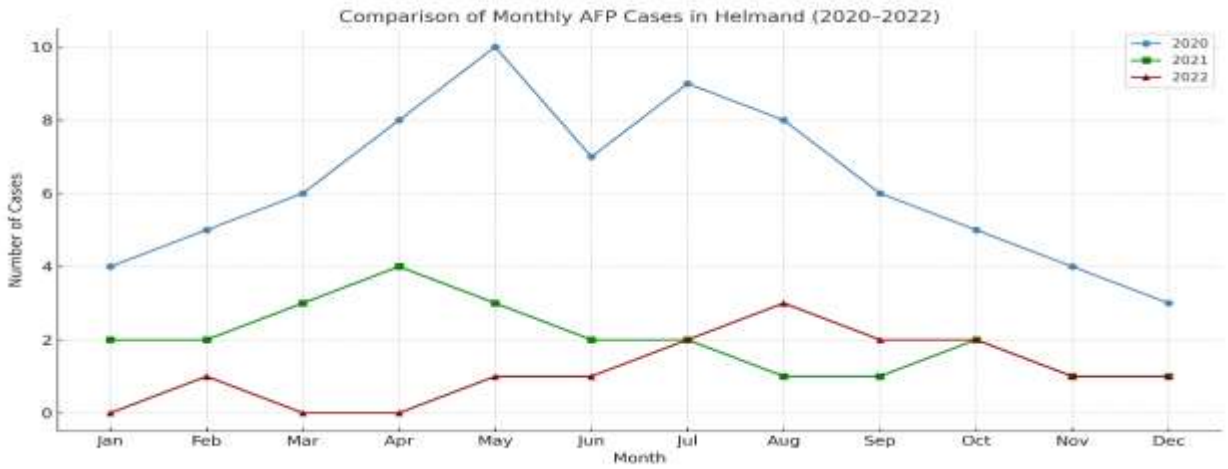

Figure 1: The trend of reported AFP cases over the three years.

Geographic Distribution: AFP cases were reported from all districts of Helmand. Most cases were concentrated in Lashkargah, Nawa, Marja, and Nad Ali districts. A spot map illustrating the distribution of cases by district is provided in Figure 2.

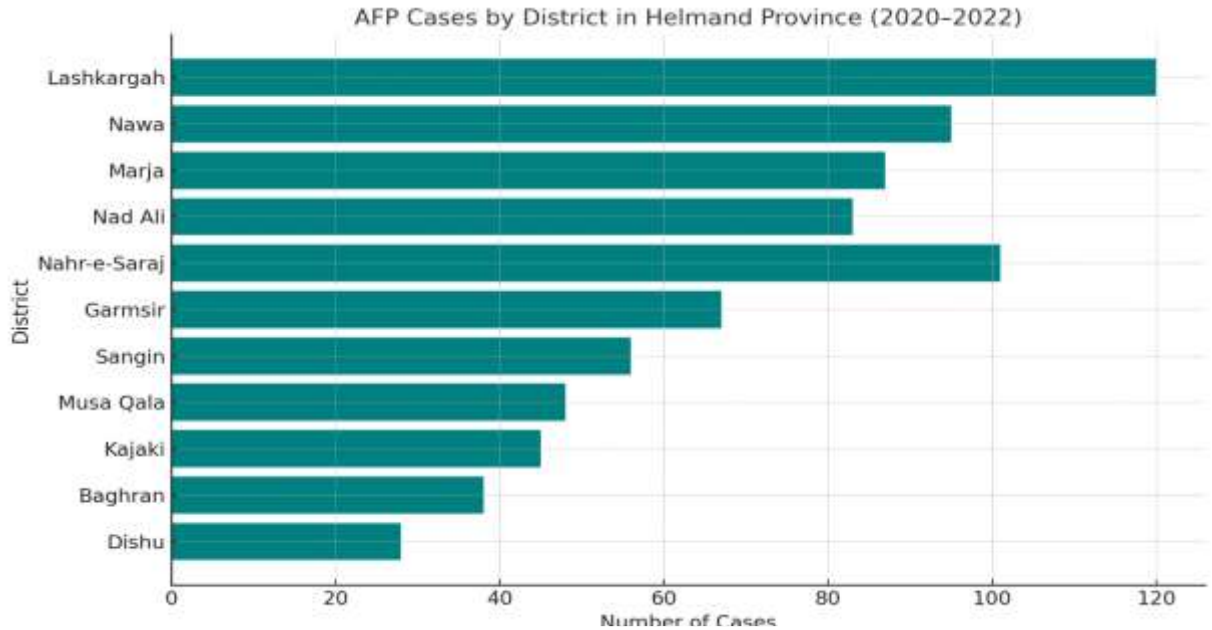

Figure 2: A spot map illustrating the distribution of cases by district

Cross-tabulation by Variables: Table 1 presents a cross-tabulation of cases by age group, gender, and year. The highest burden of cases was found in the 0–59-month age group, especially among males in 2020.

Variable Age and Gender	Years			Total
	2020	2021	2022	
Age < 5 years	289	243	195	727
Age 5-14 years	88	91	80	259
Male	203	182	154	539
Female	174	152	121	447

Table 1: Table of cases by age group, gender, and years.

Discussion

This study presents an epidemiological overview of 986 AFP cases reported in Helmand province between 2020 and 2022, showing a gradual rise in reported cases with the highest number in 2022, predominantly among children under five years and males, particularly concentrated in high-burden districts like Nahr-e-Saraj and Lashkargah, and peaking during warmer months such as spring and summer; clinical findings revealed that the majority of cases presented with fever and Guillain-Barré Syndrome (GBS) emerged as the most common non-polio cause of AFP, which is consistent with existing literature (6,9), comparison with national and international data, including WHO and GPEI reports, confirms similar patterns of age, gender, and geographic vulnerability, particularly in endemic regions like southern Afghanistan and Pakistan (1,7,8),this study fulfilled its objectives by describing the trend, distribution, and demographics of AFP cases, thereby supporting the national polio eradication program through actionable insights; implications of these findings include the need for enhanced surveillance in underreporting districts, strengthening of SIAs, integration of AFP data with DHIS2, and targeted community mobilization to address vaccine hesitancy and improve routine immunization (5), while improved reporting may reflect better surveillance, it may also indicate persistent coverage gaps in inaccessible areas; limitations include reliance on secondary data lacking virological confirmation, but overall the data provide strong operational evidence to guide polio eradication efforts in Afghanistan.

Conclusion

AFP surveillance case detection shows successful improvements over the previous years, with no positive polio case reported. AFP cases were high among males, and most of the cases were reported from the Nahr-r-Saraj district. AFP surveillance system strengthening, raising awareness, and polio vaccination efforts are recommended through this study.

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The effects of Olopatadine alone and in combination with steroids for the treatment of ocular allergy: A comparative study conducted at Bakhtar Eye Clinic, Khost, Afghanistan

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Abstract

Background: Ocular allergy (allergic conjunctivitis) is a common, non-contagious, inflammatory condition caused by environmental allergens. It results in itching, redness, and tearing, significantly affecting patients' quality of life. Olopatadine is an antihistamine that helps control allergy symptoms, but its efficacy may be enhanced when used in combination with corticosteroids. This study evaluates the clinical efficacy of combining Olopatadine with steroids compared to using Olopatadine alone in reducing symptoms of ocular allergy.

Methodology: This was a comparative analytical study conducted at Bakhtar Eye Clinic in Khost, Afghanistan, between the years 2016–2020 (1395–1399 Solar Hijri). A total of 4000 patients were enrolled and divided into two groups: Group A received only Olopatadine, while Group B received Olopatadine combined with steroids. Data were collected from clinical observations and medical reports. Statistical analysis was conducted using SPSS software, and a significance level of $p < 0.05$ was considered.

Result: The group receiving combination therapy showed significantly greater improvement in symptoms. Of the 4,000 participants, 57% (2,280) were male and 43% (1,720) were female. The average age was 34.7 years, with a standard deviation of 10.2 years. In the combination group (Olopatadine + steroids), symptoms such as itching (92%), redness (88%), and tearing (85%) were substantially reduced, compared to lower percentages in the Olopatadine-only group. A mild increase in intraocular pressure (2%) was observed among patients receiving steroid treatment. The differences between the groups were statistically significant ($p < 0.05$).

Conclusions: The combination of Olopatadine and steroids is more effective in managing ocular allergy symptoms than Olopatadine alone. However, due to potential side effects of steroids (such as increased intraocular pressure), careful clinical monitoring is essential. This treatment approach may offer effective symptom control, but further studies are recommended to assess long-term outcomes.

Keywords: Ocular Allergy, Allergic Conjunctivitis, Olopatadine, Steroids, Combination Therapy, Afghanistan

د سترګو د حساسیت ناروغۍ درملنې لپاره د اولاپاټادین یوازې او له سټیروئیدونو سره د ترکیبی کارونې اغېزې : یوه مقایسوي څېړنه ده چې د افغانستان خوست ولایت، په باختر سترګو کلینیک کې ترسره شویده

لنډیز

شالید: د سترګو حساسیت (الرژیک کنجنکتیوېټس) یوه شایع، غیرساري، التهابي ناروغي ده، چې د محیطي الرژنونو له امله رامنځته کېږي. دا ناروغي د خارش، سوروالي، او اوښکې بهېدو لامل ګرځي او د ناروغانو د ژوند کیفیت اغېزمنوي. Olopatadine یو انټي‌هیستامین درمل دی چې د حساسیت نښې کنټرولوي، خو د سترویډونو سره ګډ استعمال یې کیدای شي اغېزمنتیا لوړه کړي. دا څېړنه د دواړو درملو د ګډ استعمال کلینیکي اغېزې ارزوي. د سترګو د حساسیت نښو کمولو کې د Olopatadine او سترویډونو ګډ کارونې او د یواځې Olopatadine کارونې سره یې مقایسوی ارزول تر سره کیږي.

کړنلاره: دا څېړنه یوه مقایسوي مطالعه وه، چې د ۱۳۹۵–۱۳۹۹ کلونو ترمنځ په خوست ولایت کی د باختر د سترګو کلینیک په ارقامو ترسره شوه. څېړنه کې ۴۰۰۰ ناروغان شامل وو، چې په دوو ګروپونو وېشل شوي وو: A ګروپ یوازې Olopatadine او B ګروپ Olopatadine + Steroids ترلاسه کړل. معلومات د کلینیکي کتنو او راپورونو له مخې راټول شول. احصایوي تحلیل د SPSS له لارې ترسره شو، او د پام وړ توپیرونو لپاره p<۰,۰۵ معیار وټاکل شو.

پایلې: له ۴۰۰۰ ګډونوالو څخه ۵۷٪ (۲۲۸۰ تنه) نارینه او ۴۳٪ (۱۷۲۰ تنه) ښځینه وو. د ګډونوالو د عمر منځنی اندازه ۳۴,۷ کاله او انحرافي معیار یې ۱۰,۲ کاله ثبت شوی. خارش (۹۲٪)، سوروالی (۸۸٪)، او اوښکې بهېدل (۸۵٪) کم شوي، پداسې حال کې چې یوازې د Olopatadine ګروپ کې دا سلنې د پام وړ ټیټې وې. د سترویډ کارونې سره یو ځای د سترګو فشار لږ لوړوالی (۲٪) ولیدل شو. احصایوي توپیرونه د پام وړ وو (p<۰,۰۵).

د Olopatadine او سترویډونو ګډه درملنه د سترګو د حساسیت د نښو په کنټرول کې د یواځې Olopatadine پرتله اغېزمنتیا لري. سره له دې، د سترویډ اړخیزو اغېزو له امله، کلینیکي څارنه اړینه ده. دا میتود کولی شي د سترګو حساسیت مؤثر مدیریت ته زمینه برابره کړي، خو اوږدمهاله اغېزې یې باید په راتلونکو څېړنو کې وڅېړل شي.

کلیدي کلیمې: د سترګو حساسیت، الرژیک کنجنکتیوېټس، اولاپاټادین، سترویډونه، ګډه درملنه، افغانستان

سریزه

د سترګو الرجیک ناروغۍ (Ocular Allergies) د سترګو هغه شایع، مزمن او غیرساري ناروغۍ دي چې د محیطي الرجنونو (الرجی راپارونکو عواملو) له امله رامنځته کېږي. دا حالت اکثره وخت د موسمي الرژیو یا د تماس الرژیو په ښه څرګندېږي، او د سترګو خارښت، سوروالی، او اوښکو بهېدل یې عمده نښې دي (۱). د دغې ناروغۍ شدت، د ناروغ د ژوند د کیفیت (QoL) پر ټولو اړخونو اغېز کوي، په ځانګړې توګه پر زده کړو، کار او ورځنیو فعالیتونو باندې (۲).

د دغو ناروغیو درملنه اکثراً له دریو مهمو درملیزو رژیمونو څخه عبارت ده: آنټي‌هیستامین، سټېرویید، او ترکیبی/ مزدوج درمل چې دواړه آنټي‌هیستامین او ماسټ سل استیبلایزر تأثیر لري (۳). د اولاپاټادین هایدروکلورایډ (Olopatadine HCl) درمل یو دوه ګوني اغېز لرونکی آنټي‌هیستامین بلل کېږي چې هم د H۱ ریسیپټور بلاکر او هم ماسټ سل استیبلایزر ځانګړتیاوې لري، او

د سترګو په الرژیک التهاباتو کې ګټور ثابت شوي دي(٤). برعکس، سټروئید درمل لکه لوټیپریډنول یا فلوورومیتولون، د التهابي سایټوکاینونو په کمولو سره ژور ضد التهابي تأثیر لري، خو اوږدمهاله کارونه یې ممکن د سترګو فشار لوړوالي (glaucoma) او cataract لامل شي (٥'٦).

د وروستیو کلونو څېړنو ښودلې چې د اولاپاټادین او سټروئید ترکیب ممکن د الرژیک کنجنکټیوېټس په کنټرول کې یو بل تکمیل کړي، ځکه اولاپاټادین ژر اثر لري او سټروئید اوږدمهاله تاثیر لري(٧). خو د دغې ترکیب مؤثریت او خوندیتوب په افغان ناروغانو کې تر اوسه په علمي بڼه نه دی ارزول شوی.

له همدې امله، دا څېړنه د دې لپاره طرحه شوې چې د اولاپاټادین او سټروئید ګډ تاثیر د سترګو په الرژیک ناروغیو کې ارزونه وشي او دا وښیي چې آیا دغه ترکیب د انفرادي درملو په پرتله اغیزناک او خوندی دی که نه. دا څېړنه به افغانستان کی د سترګو ډاکترانو، د عامې روغتیا پالیسی جوړونکو او کلینیکي درملو جوړونکو ته مهم شواهد برابر کړي.

څېړنیزه کړنلاره

دا څېړنه یوه مقایسوي تحلیلي (comparative analytical) څېړنه ده چې د Olopatadine HCl او Steroids ګډ اثر د سترګو د حساسیت په درملنه کې ارزوي. څېړنه د دوو ګروپونو ناروغانو ترمنځ ترسره شوې: د لومړي ګروپ ناروغانو ته یوازې Olopatadine ورکړل شو، پداسې حال کې چې دوهم ګروپ ته د Olopatadine او سټیروئید ګډه درملنه تطبیق شوه. دا وېش د ناروغانو د شمولیت معیارونو له مخې د کلینیک لخوا تنظیم شوی وه تر څو دواړه ګروپونه د عمر، جنس او کلینیکي نښو نښانو له مخې متوازن وي.

د څېړنې ځای او موده: دا څېړنه د خوست ښار په باختر د سترګو کلینیک کې ترسره شوې او د څېړنې موده ۱۳۹۵- ۱۳۹۹ ټاکل شوې وه.

د نمونې اخیستلو طریقه: نمونه اخیستنه د " Non-Probability Convenience Sampling" له لارې ترسره شوه. په دې څېړنه کې هغه ناروغان شامل شول چې د سترګو حساسیت نښې یې درلودې او د باختر خصوصي سترګو کلینیک ته یې مراجعه کړې وه. ناروغان هغه مهال څېړنې ته شامل شول کله چې د ګډون لپاره لازم شرایط یې پوره کړل. دا شرایط عبارت وو له: عمر د ۱۵ او ٦٥ کلونو ترمنځ، د سترګو حساسیت د تشخیص موجودیت، د درملنې پخوانی تجربه، او دا چې ناروغان باید رضایت ورکړي وای. هغه کسان چې نورو شدیدو سترګو یا سیستمیکو ناروغیو، یا درملو ته د حساسیت سابقه لرله، له څېړنې څخه بهر کړل شول.

د معلوماتو راټولول: معلومات د یوې جوړې شوې فورمې له لارې راټول شول، چې پکې د ناروغ د عمر، جنس، کلینیکي نښې، او د درملنې د پایلو (Outcome) معلومات شامل وو. هر ناروغ له درملنې مخکې او وروسته (د ۱۴ ورځو په فاصله) معاینه شو.

د پایلو اندازه کول: د درملنې اغیز د نښو شدت (Itching, Redness, Tearing) له مخې په عددي ډول (۰-۳ Scale) اندازه شو. دا معلومات بیا جدول بندي او مقایسه شول.

د معلوماتو تحلیل: راټول شوي معلومات د SPSS (نسخه ٢٦) په مرسته تحلیل شول. د ګروپونو ترمنځ توپیر د Chi-square آزموینې او Independent t-test له لارې ارزول شوی. P-value < ۰,۰۵ معنا داره ګڼل شوې ده.

۱ جدول: د احصایوی متحولاتو آزموینې

متغیر	ډول	استعمال شوی احصایوي تست
جنسیت	(categorical)	Chi-square
د درملنې ډول (Olopatadine یوازینی vs Olopatadine +سټیروئید)	(categorical)	Chi-square
د عمر منځنی او معیاري انحراف	(quantitative)	Independe) (nt t-test
کلینیکي نښې نښه‌والی	(categorical)	Chi-square
اړخیز عوارض	(categorical)	Chi-square

اخلاقي ملاحظات: د څېړنې لپاره د اړوند دعامی روغتیا له ولایتي ریاست او د روغتون که مشرتابه څخه اجازه ترلاسه شوې وه. ټولو ګډونوالو ته د څېړنې موخه تشریح شوې او د هغوی رضایت ترلاسه شوې ده. د ګډونوالو محرمیت خوندي شوی او نومونه یې نه دي ثبت شوي.

پایلې

په دې څېړنه کې، د Olopatadine یوازې او د Olopatadine + ستروئید ګډې درملنې ترمنځ د درملنې اغېزې او احتمالي عوارض پرتله شول. څېړنه پر ۴۰۰۰ ناروغانو تطبیق شوه چې دوه مساوي ګروپونو (۲۰۰۰–۲۰۰۰) ته وېشل شوي وو.لاندې جدولونه د کلینیکي نښو ښه والي، اړخیزو عوارضو، او احصایوي تحلیل د پایلو توضیح وړاندې کوي.

۲ جدول د دیموګرافیکی خصوصیات: له ۴۰۰۰ ګډونوالو څخه ٪۵۷ (۲۲۸۰ تنه) نارینه او ٪۴۳ (۱۷۲۰ تنه) ښځینه وو. د ګډونوالو د عمر منځنی اندازه ۳۴,۷ کاله او انحراف معیاري یې ۱۰,۲ کاله ثبت شوی.

نشه	مقدار	فیصدی
نارینه	۲۲۸۰	٪۵۷
ښځینه	۱۷۲۰	٪۴۳

۳ جدول د کلینیکي نښو ښه والی: دا جدول ښیي چې د Olopatadine + ستروئید ګډه درملنه نسبت یوازې Olopatadine ته د نښو په ښه کولو کې غوره پایلې لري.

د غبرګون کټګوری	Olopatadine یوازې ګروپ (n = ۲۰۰۰)	Olopatadine + Steroid ګروپ (n = 2000)	p-value
بشپړ ښه والی	1300 (65%)	1660 (83%)	**0.000**
متوسط ښه والی	500 (25%)	280 (14%)	
هیڅ ښه والی نه	200 (10%)	60 (3%)	

۴ جدول اړخیز عوارض: په لاندې جدول کې د دواړو درملنو اړخیز عوارض پرتله شوي، چې ښیي ستروئید سره درملنه یو څه زیات عوارض لري.

د اړخیزو عوارضو ډول	Olopatadine ګروپ (n = 2000)	Olopatadine + Steroid ګروپ (n = ۲۰۰۰)	p-value
د سترګو سوخت	360 (18%)	200 (10%)	0.000
د سترګو وچوالی	240 (12%)	180 (9%)	
د لید کمزوري	60 (3%)	100 (5%)	
نور	40 (2%)	20 (1%)	

احصایوي تحلیل: د احصایوي تحلیل له مخې، د کلینیکي نښو بدلون د "p<۰,۰۵" سره معنی لرونکی و، چې ښیي پایلې تصادفي نه دي. د Olopatadine + ستروئید ګروپ د ټولو نښو په ښه والي کې غوره نتیجه ورکړې ده.

مناقشه

پایلې ښیي چې د Olopatadine او ستروئید ترکیبي درملنه د سترګو الرژۍ د کلینیکي نښو په کنټرول کې تر یوازې Olopatadine غوره اغېز لري. دا پایله د Friedlaender et al. (۲۰۰۰) څېړنې سره هم‌غږي ده، چې څرګنده کړې چې د انتي‌هیستامین + ستروئید ترکیب د الرژیک کنجنکتیوېټس لپاره قوي درملنه ده(۸).

زمونږ احصایوي تحلیل تایید کړه چې په ګډه درملنه کې د خارښت، سوروالي او اوښکو اندازه د پام وړ کمه شوې (p<۰,۰۵). دا پایلې د Leonardi et al. (۲۰۱۹) مشاهداتو سره سمون لري، چې وایی د ستروئید اضافه کول د نښو په چټک کنټرول کې مرسته کوي (۹).

د Hashmani et al. (۲۰۲۱) څېړنه چې په پاکستان کې ترسره شوې، د ترکیبي درملنې لوړ رضایت کچه تایید کړې، چې زمونږ د موندنو سره سمون لري (۱۰). همداراز، د چین د Chen et al.

(۲۰۱۷) څېړنه وړاندیز کوي چې د درملنې دا ترکیب د درملنې مقاومت په حالتونو کې ګټور تمامیږي (۱۱).

نیمګړتیاوې: څېړنه پر روغتون کی د موجوده ارقامو کوم چی د څلورو کلونو په ترڅ کې راټول شوی وو، پر سر کتنه تر سره شوه. د ناروغانو انتخاب د ترکیبي دوا یا د اولاپاټادون یوازی رژیم لپاره په تصادفی شکل ندی تر سره شوی، ممکن د ساده انتخاب په پایلو کی بایس رامنځته کړی وي. موجوده څېړنې یوازې لنډمهاله اغېزې ارزولي؛ اوږدمهاله پایلې او احتمالي عوارض نه دي څېړل شوي.

د ناروغانو د ښه والی درجې د احصایوي معیارونو پر اساس نه، بلکې یوازې کلینیکي مشاهدې او ناروغ د حکایت پر بنسټ ارزول شوې کیدای شي ناروغ ښه والی په مبالغوی شکل ډېر ښه ښودلی وی.

د سترویئید اړخیزې اغېزې په بشپړ ډول نه دي څېړل شوې، که څه هم د سترګو فشار لوړوالی ۲٪ ثبت شوی.

آخری پیغام: د دې څېړنې پایلې څرګندوي چې د Olopatadine سره د سترویئید ترکیبي درملنه د الرژیک کنجنکتیوېټس د نښو په کمولو کې تر یوازې Olopatadine اغېزناکه ده. د ترکیبي درملنې ګټې عبارت دي له چټک کلینیکي رغیدنه، د خارښت او سوروالي ژر کنټرول، او د ناروغانو د قناعت لوړه کچه. سره له دې، دا ډول درملنه باید د دقیق کلینیکي نظارت لاندې ترسره شي، ځکه سترویئیدسونه اوږدمهاله کارولو کې ممکن ځینې اړخیزې اغېزې ولري. څېړنه وړاندیز کوي چې د سترګو د الرژیو په درملنه کې باید د درملو د ترکیب پر اغېز تمرکز وشي، او همداراز د ناروغانو انفرادي حالتونه او درملنیزې اړتیاوې په پام کې ونیول شي. راتلونکې څېړنې باید اوږدمهاله ارزونې پکې شاملې کړي. د سترویئید د بدیلو درملو څېړنه باید وشي، څو اړخیزې اغېزې کمې شي. د ناروغانو د ژوند کیفیت باید د معیاري مقیاسونو پر بنسټ تحلیل شي.

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The introduction should be brief, ideally 2-3 paragraphs long. It should clearly state the problem being investigated, the background that explains the problem, and the reasons for conducting the research. It should summarize relevant research to provide context, state how the authors' work differs from published work and importantly what questions the article answer. Briefly describe your experiment, hypothesis, research question(s), and general experimental design or method.

Methods

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numerical results can be validated. It is advisable to use the past tense, and avoid using the first person. This section should be no more than 2 pages.

Results

Results should objectively present the findings, and explain in words what was found. This section shows that new results are contributing to the body of scientific knowledge, so it is important to be clear and lay them out in a logical sequence. The data should be analyzed and presented in the form of figures (graphs), tables, and/or description of observations. It is important to clearly identify for the reader any significant trends. The results section should follow a logical sequence based on the table and figures that best presents the findings that answer the question or hypothesis being investigated. Tables and figures are assigned numbers separately, and should be in the sequence that the author refers to them in the text. Figures should have a brief description (a legend), providing the reader sufficient information to know how the data were produced. It is important not to interpret the results - this should be done in the discussion section. It should not have more than 2-3 tables and 2 graphs.

Discussion

In this section, the author should describe what his/her results mean, specifically in the context of what was already known about the subject of the investigation. The author should link back to the introduction by way of the question(s) or hypotheses posed. Author should indicate how the results relate to expectations and to the literature previously cited, whether they support or contradict previous theories. Most significantly, the discussion should explain how the research has moved the body of scientific knowledge forward. It is important not to extend conclusions beyond what is directly supported by the author's results, so avoid undue speculation. It is advisable to suggest practical applications of results, and outline what would be the next steps in the study. The author should also discuss the strengths and weaknesses in relation to other studies.

In short the discussion should at least talk about:

- statement of principal findings
- strengths and weaknesses of the study
- strengths and weaknesses in relation to other studies

Conclusion

The paper should end with strong and clear conclusion. It should be like a "thunderbolt in reverse": it begins with thunder (introduction) and ends with lightning (conclusion). Conclusion should be linked with the goals of the study, and should be limited to the boundaries of the study. Authors should avoid unqualified statements and conclusion not completely supported by the data. For example, they should not make statements on economic benefits and costs unless their manuscript includes economic data and analysis. Authors should refrain from claiming unjustified priority about the findings. It should be noted that a negative finding could be as important as a positive finding.

In short the conclusion should at least talk about:

- Meaning of the study, possible mechanisms and implications for clinicians and policymakers
- Unanswered questions and future research conclusion.

Acknowledgment

This section should be brief and include the names of individuals who have assisted with the study, including, contributors, suppliers who may have provided materials free of charge, etc. Authors should also disclose in their article any financial or other substantive conflict of interest that might be construed to influence the results or interpretation of their article.

References

Both the in-text citations and references for Ghanzanfar Medical Journal are in Harvard Style or Vancouver Style. All the materials should be cited in Harvard Style or Vancouver Style.

Submission and formatting requirements for manuscript

Original article should be maximum 3,000 words excluding title page, a structured abstract of 250 words and references with no more than three tables or figures and 25 references

The manuscript must be written in American English. Non-native English speakers must seek the assistance of experienced, English-speaking medical editors if in doubt.

- Type the manuscript on A4 size (8.5x11 inches or 21.6x27 cm) white bond paper, with margins of at least 1.5 inches (4 cm).
- Type on one side of the paper, double spacing every page.
- Begin each section on separate page and in the following order: title page, abstract, introduction, materials/ subjects/ patients and methods, results, discussion, conclusion, acknowledgements, references, tables and figures with legends.
- Number pages consecutively in the upper right-hand corner of each page, beginning with the title page. Type the page number.
- Present decimal figures up to 2 decimals only. e.g. 0.07 is correct instead of 0.071.
- Sentences should be properly structured instead of giving brackets within a sentence. For example, the study participants (women of age group 25-30 years) were approached for the interviews. The correct way is 'The study participants included women of age group 25-30 years. They were approached for the interviews.'

Both the printed version (in A4 size, double space) and the soft copy should be submitted to the GMJ. When submitting the manuscript to GMJ it should accompany a letter, which addresses the following:

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