



**French Medical Institute for
Mothers and Children**



Abstracts

Ninth Annual FMIC International Scientific Conference

“The Science of Healthcare: Access & Quality”

August 3, 2019

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The Science of Healthcare: Access and Quality

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Acknowledgement

The organising committee of the Ninth FMIC Annual International Scientific Conference gratefully acknowledges the financial and in-kind contributions of Global Affairs Canada (GAC), Agence française de développement (AFD), Aga Khan Foundation and other partners who have made to the conference and to various programmes. These contributions enabled a successful conference.

Message from Chief Executive Officer

On behalf of Members of the Board and the Hospital Management of the French Medical Institute for Mothers and Children (FMIC), I extend a warm welcome to all the participants of the Ninth FMIC Annual International Scientific Conference 2019.

The French Medical Institute for Mothers and Children embodies a sign of hope for the medical care of women and children in Kabul. FMIC is the first international, philanthropic, public-private, not-for-profit health institution in Kabul, Afghanistan; established in 2005 by Enfants Afghans – a project of La Chaîne de L'Espoir, a French NGO, as a four party unique public-private partnership between the Governments of Afghanistan and France, a French NGO – La Chaîne de l'Espoir and the Aga Khan Development Network (AKDN) through The Aga Khan University Hospital, Karachi (AKUH, K). FMIC is the first ISO certified hospital in Kabul, aiming to provide compassionate, accessible, cost-effective, high quality care services to the population of Afghanistan. Currently the hospital has beds for 169 patients, including 15 intensive care beds for children less than 18 years of age, 17 beds for adult cardiac patients, 28 beds for maternal care, 95 beds allocated for adult and paediatric medical and surgical units and a 14 bed neonatal intensive care unit, six operation theatres, radiology section which includes 128 slice CT-Scan and MRI capabilities, a state-of-the-art laboratory, a 24-hour pharmacy service and outpatient services for the adult population in medical and surgical specialties. FMIC is also working toward expansion of its health services towards establishing a comprehensive medical complex in Kabul, which will serve, not only the Afghan population but Central Asia, as well as a medical centre of excellence. This expansion will occur in phases III as Expanded Medical Complex and Academic Health Sciences Centre respectively.

One of FMIC's objectives is to develop the institution into an academic centre that develops local and regional health human resources, leading to human resource sustainability. Building on this theme, FMIC has become a training centre of choice for different healthcare institution in Afghanistan. We have initiated Postgraduate Medical Education in seven disciplines, another step towards academic excellence.

FMIC has previously organised eight International Conferences, 'Paediatric Care in Afghanistan' on February 26-27, 2011; 'From Paediatric Care to Child Health' on December 1-2, 2012; 'Moving towards Quality Healthcare for Mother and Child' on October 5-6 2013; 'Strengthening Academics and Health Services in Developing Countries in Transition' on October 23-24, 2014; "Emerging Trends in Reproductive, maternal, newborn and child health in Developing Countries" on December 8-9, 2015, 'Emerging Trends of Non-Communicable Diseases (NCDs) in Developing Countries' on November 24, 2016, 'Healthy Lives and Well-being for All' on August 5, 2017 and 'Better health: Reaching everyone, everywhere' on August 5, 2018.

FMIC now brings the Ninth FMIC Annual International Scientific Conference to you with the theme of "The Science of Healthcare: Access & Quality" I believe that you will find the conference programme most informative and your attendance will be most worthwhile.

Once again, welcome to the Ninth FMIC Annual International Conference and our best wishes for a stimulating and rewarding experience.

Dr Nayamat Shah
Chief Executive Officer, FMIC
August 2019

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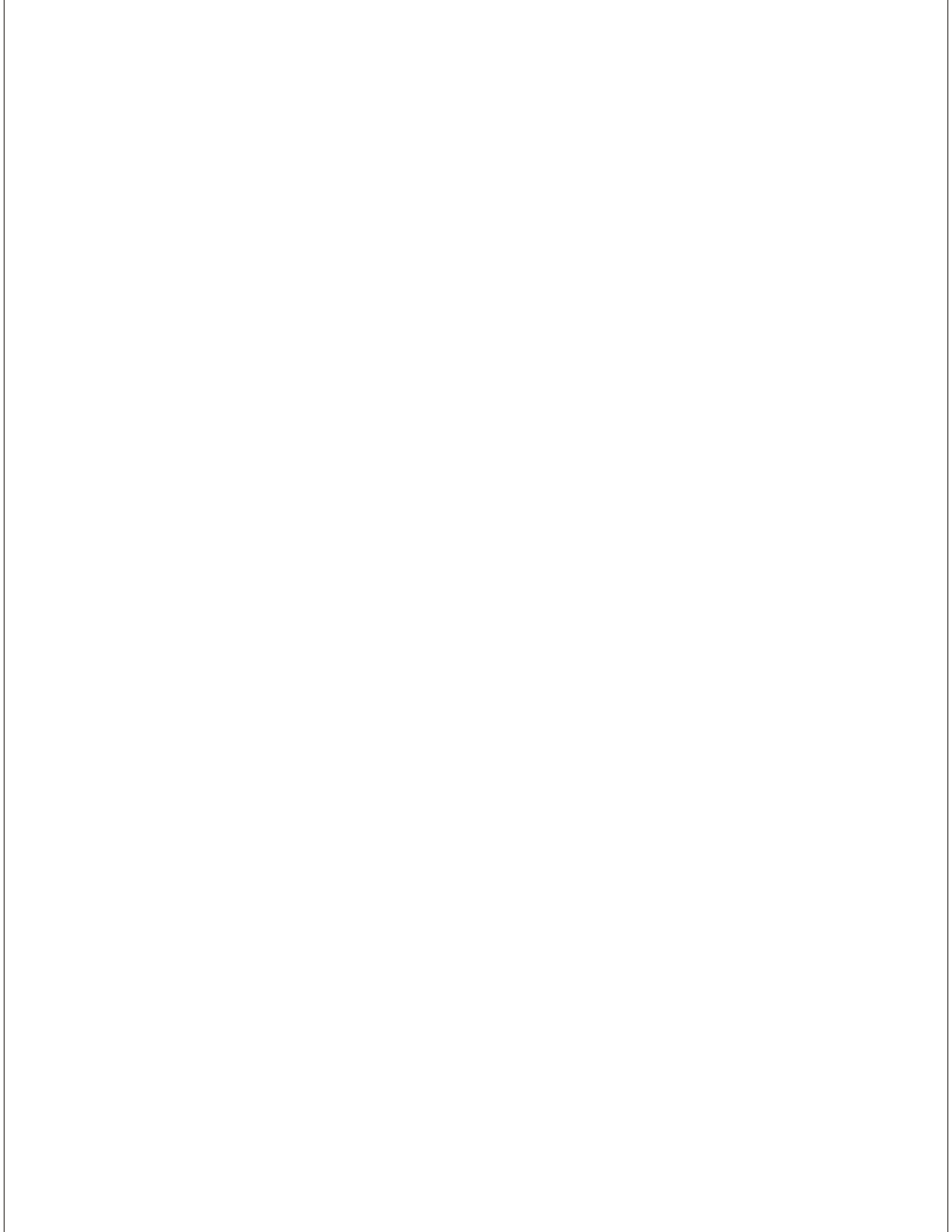
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Conference Programme

Theme	Presentations
Session 1: Governance, Population and Public Health	Seroprevalence of Cytomegaloviruses in Afghanistan
	Determinants of Vitamin A Supplementation Coverage Among Children 6-59 Months in Afghanistan: Secondary Analysis from Afghanistan Demographic and Health Survey 2015
	Factors Affecting Immunization Coverage in Afghanistan: Current Situation and the Way Forward, 2018
	Determinants of Water and Sanitation in Afghanistan; Analysis of the Afghanistan Demographic and Health Survey
	Afghanistan National Health Accounts 2017
	Afghanistan Health System: A Comparative Study with its Four Neighboring Countries
	Exploring Caregivers' Practices on Care for Child Development in Afghanistan
	An Analysis of the Global Fund Investments in Human Resource for Health: Afghanistan
	Exploring Gender Disparities of Pulmonary Tuberculosis in Afghanistan: A Cross-Sectional Assessment
	Driver's Perception on the Risk Factor of Road Traffic Accident in Afghanistan
Session 2: Reproductive, Maternal, New-born and Child Health	Factors Associated with Antenatal Care Visits in Afghanistan: Secondary Analysis of Afghanistan Demographic and Health Survey 2015
	Understanding Pathways Leading to Stillbirth: The Role of Care-Seeking and Quality of Care Received During Pregnancy and Childbirth In Afghanistan
	"The midwife advised me to give birth in the clinic. If not, my baby might die, again" A Qualitative Study of Women's Utilization and Experience of Professional Midwifery Services in Rural Afghanistan
	Home-Based Records for Poor Mothers and Children in Afghanistan, A Cross Sectional Population Based Study
	Assessment of Complications of Newborn in Twins Pregnancies in Malalai Maternity Hospital, Kabul- Afghanistan
	Maternal Mortality Ratio and its Causes During Five Years at Tertiary Care Hospital of Malalai: A Cross-Sectional Study
	Trends of Cesarean Section in Obstetrics and Gynecology Department of FMIC in Two Years
	Assessing the World Health Organization (WHO) Family Planning Guidance and Tools Integration and Institutionalization into the National Family Planning Programme in Afghanistan
	Prevalence of Anemia Among Pregnant Women in Their 3 rd Trimester in Kabul: Results from a Tertiary Hospital
	Short-Term Outcomes of Term Neonates with Birth Asphyxia in NICU at French Medical Institute for Mothers and Children
Session 3:	Afghanistan Non-Communicable Diseases and Injuries Poverty Commission - Preliminary Findings

Theme	Presentations
Non-Communicable Diseases	
	Prevalence of Suicide, Depression, Anxiety and Psychological Distress in Afghanistan
	Neuroprotective Effects of Co-Administration of Coenzyme Q10 and Vitamin-E in Chronic Cerebral Hypoperfusion-Induced Neurodegeneration in Rats
	Exploring the Use of Tobacco Among School Age Students in Kabul City, Afghanistan
	Detection and Comparison of Light Metals in Hair Among Workers of Different Industries Using Particle Induced X-Ray Emission (PIXE) for Forensic Casework
	Association of Number of Deliveries with Intervertebral Disc Degeneration Diagnosed on Magnetic Resonance Imaging in A Tertiary Care Setting; an Analytic Cross Sectional Study
	Proportion and Histopathological Characteristics of Invasive Ductal Carcinoma Among Other Female Breast Cancers at a Tertiary Care Hospital, Kabul, Afghanistan
	Chronic Lead Exposure in Beninese Children Applying Z-Plasty and Radical Excision of the Overgrowth Tissues for a Patient with Congenital Constriction Ring Syndrome of the Limb With Progressive Lymphedema Causing Vascular Insufficiency and Risk for Amputation: A Case Report
Session 4: Clinical Practice	Clinical Staging and Assessment of Resectability of Abdominal Digestive System Organs Cancer
	Brain Hydatid Cyst Cases in Neurosurgery Ward of Aliabad Hospital
	Role of Cystoscopy in Pediatric Surgery Diagnosis and Treatment: Experience By a Single Surgeon at French Medical Institute, Kabul- Afghanistan.
	Proportion of Steroid Sensitive Nephrotic Syndrome and Risk Factors Associated with Relapse in Children at FMIC, Kabul, Afghanistan
	Developmental Dysplasia of the Hip (DDH) Covers A Group of Developmental Disorders of the Hip Characterized by Hip Subluxation, Dysplasia or Dislocation
	Esophageal Atresia and Tracheoesophageal Fistula Tubeless Repair; New Highlight in Previews Procedure at French Medical Institute for Children in Kabul, Afghanistan
	Outcome of Pauwels' Y-Shaped Intertrochanteric Osteotomy for Coxa Vara Among Children at French Medical Institute for Mothers and Children (FMIC), Kabul, Afghanistan
	Association Between WBC Count and AMI in-Hospital Mortality in a Tertiary Care Hospital, Kabul, Afghanistan
	Pattern and Clinical Outcome of Hirschsprung's Disease Patients Operated at FMIC in Year 2018, a Case Series
Session 5: Technology, Research and	Effect of Active Follow-Up on Child TB Patients Via Phone on Tuberculosis Treatment Outcomes in Kabul City – Document Review
	In Vitro Transplantation: Novel Method in Infertility Treatment by Spermatogonial Stem Cell
	Going Digital: Added Value of Electronic Data Collection in the 2018 Afghanistan

Theme	Presentations
Innovation	Health Survey
	Investigation of a Fatal Botulism Outbreak in, Baghlan Province, Afghanistan, September, 2017
	Factors Associated with Abnormal CT Findings in Mild Head Trauma Patients in A Tertiary Hospital, Kabul, Afghanistan
	Humanitarian and Primary Healthcare Needs of Internally Displaced Population in Afghanistan
	Descriptive Epidemiology of Measles Outbreaks in Afghanistan: National Surveillance Data, 2017- First Quarter of 2019
	Review of Tetanus Toxoid (TT) Coverage in Sari Pul Province-Afghanistan-2018
Session 6: Quality, Nursing and Allied Health	Flipped Versus Traditional Instruction and Performance Outcome in aBaccalaureate Nursing Pharmacology Course
	Home Health Services-Improving Patient's Safety and Quality Care at Doorstep
	Prevalence and Associated Risk Factors of Difficult Intubation
	Physicians' and Nurses' Perspectives on the Importance of Advance Directives in Tertiary Care Hospitals
	Study On Socio-Economic And Socio-Demographic Features Of Esophageal Cancer In French Medical Institute For Mothers And Children (FMIC), Kabul Afghanistan.
	Barriers Associated with Evidence-Based Practice Among Nurses in Low and Middle Income Countries: A Systematic Review
	Outcomes of Bupivacaine Plain Versus Bupivacaine-Clonidine Mixture in Caudal Epidural Block in Children Undergoing Sub-Umbilical Surgery at French Medical Institute for Mothers and Children
	Cephalometry to Determine the Head Index for Children Younger than 6 Years of Age in Kindergartens at the Ministry of Higher Education in Kabul
Relationship Between Social Competency and Empowerment with Organizational Citizen Behavior at Private Institutes of Health Sciences in Kabul	

Oral Presentations
Scientific Sessions

Abstracts

Governance, Population and Public Health

Session 1

Seroprevalence of Cytomegaloviruses in Afghanistan

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Introduction

Human Cytomegalovirus (CMV) is a member of the Herpesviridae family, with the ability to establish a long-lived latent infection. CMV infection causes problems in immunocompromised hosts undergoing organ and stem cell transplantation. The prevalence of CMV in adults varies in different geographic regions. The purpose of this study was to assess the prevalence of CMV in the adult population of Afghanistan, which did not have epidemiologic information for CMV infection.

Methods

A total of 500 adults residing in main regional provinces of Afghanistan including Nangarhar, Herat, Mazar-e-Sharif, Kandahar and Kabul in the age range of 25-70 years old were randomly selected to be included in the study. Among the participants, 263 (52.6%) were female and 237 (47.4%) were male. The samples were tested for the presence of CMV IgM and IgG antibodies using chemiluminescence immunoassay on the Abbott Architect automated platform.

Results

The seropositivity of CMV was found 99.79 % in Afghanistan. There were no significant differences in the prevalence of CMV infection among the five regions. The seropositivity of anti-CMV IgG positive rate in Kandahar, Kabul, Nangarhar and, Herat was determined as 100%. The CMV IgG prevalence was 98.99% in Mazar-e-Sharif. Anti CMV IgM was found 1.24% in in the study population.

Conclusion

Our study showed that the seroprevalence is high in Afghanistan. Because of the high frequency of seropositivity in general population in Afghanistan, the approaches for preventing CMV reactivation need to be developed.

Keywords

Seroprevalence, CMV, adult, population, Afghanistan

Determinants of Vitamin a Supplementation Coverage Among Children 6-59 Months in Afghanistan: Secondary Analysis from Afghanistan Demographic and Health Survey 2015

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Introduction

Vitamin A deficiency is a major public health concern. It accounts for childhood deaths due to diarrhoea and measles. Vitamin A is available in food and can also be taken through direct supplementation. To prevent VAD among young children, Vitamin A supplementation (VAS) is being implemented in many countries including Afghanistan during National Immunization Day (NID) campaigns.

Objective:

This study aimed to assess the factors influencing vitamin A supplementation coverage in Afghanistan.

Methods

The Afghanistan Demographic and Health Survey (AfDHS) was a cross-sectional study conducted in 34 provinces of Afghanistan. It surveyed 24,395 households (29,461 ever-married women and 10,760 ever-married men) in 2015. This study is an interpretation of the AfDHS. The main outcome measure was the proportion of eligible children who received vitamin A supplementation in the last 6 months preceding the survey. The socioeconomic, geographic, and maternal factors were analysed in this study.

Results

Forty-eight percent (48%) of children aged 6-59 months received vitamin A supplement in the last 6 months preceding the survey in Afghanistan. The children of educated, empowered, and richest mothers living in Southeast & West regions who received 2-3 antenatal care visits had higher chance of receiving vitamin A supplements (primary education aOR 1.29 $p < 0.0001$, secondary education aOR 1.17 $p < 0.02$, empowerment aOR 1.10 $p < 0.006$, richest quintile aOR 1.18 $p < 0.028$, southeast aOR 2.56 $p < 0.0001$ and west aOR 1.68 $p < 0.0001$, 2-3 ANC visits aOR 1.74 $p < 0.0001$). However, children of mothers with higher education living in the South and North regions had lower chance of receiving vitamin A supplements (higher education aOR 0.92 $p < 0.0001$, south aOR 0.52 $p < 0.0001$, north aOR 0.86 $p < 0.0001$)

Conclusion

The study found that children of educated, empowered, richest mothers had higher chance of receiving vitamin A supplementation, while the children of mothers living in the South and North regions in the lowest wealth quintile had lower chance. The strategies need to be in place to achieve better coverage of vitamin A supplementation.

Factors Affecting Immunization Coverage in Afghanistan: Current Situation and the Way Forward, 2018

Mohammad Ismail Zubair MD, MSc, HPD/MoPH, Kabul, Afghanistan.

Objectives

To assess the factors affecting Immunization coverage in Afghanistan, and explore the NEPI present situation and way forward.

Methods

A mixed-method operational research design was used. Desk review, quantitative and qualitative data collection approaches were used. The study participants were EPI frontline workers, mid-level and senior management staff. A comprehensive checklist and structured interviews were used for quantitative data collection through vaccine centres observation and immunization services providers' interviews respectively. Qualitative arm included semi-structured interviews with children caregivers, women of child bearing age and community people. These in-depth interviews were performed till the point saturation was achieved in study findings. For quantitative part, bio-statistical method that is reporting

of descriptive frequencies is performed, and data was analysed using SPSS 19.0 software. Analysis of qualitative data was done manually and codes and themes were generated from findings.

Results

At community level, the main constraints of demand side are: low community awareness, myths about vaccines, and low community ownership. Supply side barriers are ambiguous micro-planning, white areas, unequal geographical distribution of fixed centres, lack of female vaccinators, weak outreach and unavailability of mobile services. Whereas, low management and technical capacity, minimum salary, weak coordination and communication, low performance accountability are mid-level constraints. Similarly, lack of clarity in strategic directions, using old management, no growth opportunity for staff, weak data management and use, and lack of program evaluation are the senior management/ policy level barriers. Aforementioned factors have direct effect on national coverage of immunization in Afghanistan.

Conclusion

It is important that the various factors affecting coverage of immunization services become explicit to healthcare providers, health system managers, and policy makers in order to continuously monitor and improve vaccine service provision in the country and to meet the expected benchmarks.

Keywords

Immunization; Coverage; Barriers; Management; Afghanistan

Determinants of Water and Sanitation in Afghanistan; Analysis of the Afghanistan Demographic and Health Survey

Nasratullah Rasa MD, EMBA, MPH

Introduction

Safe drinking water, improved sanitation and good hygiene are essential for good health and prevention of diseases. Afghanistan needs to accelerate efforts to achieve the water and sanitation related SDGs. It is important to know the determinants of access to adequate water, sanitation and make policies and programmes accordingly.

Objective:

The main objective of this study was to assess determinants of access to improved water and sanitation facilities among Afghan households.

Methods

This study was conducted using cross-sectional data obtained from Afghanistan Demographic and Health Survey. A logistic regression of determinants of access to improved water and sanitation was carried out.

Results

We carried out analysis of the Demographic and Health Survey data for Afghanistan for access to water and sanitation by households. According to DHS Afghanistan, about 65% of households in Afghanistan have access to an improved source of drinking water, and 25% to improved sanitation facilities. This is not equal across all households. A number of factors determine the access. In case of access to drinking water, being rich (OR 6.7), living in Northeast and Southeast (OR 2.2 and 2.6 respectively), head of household with higher education (OR 1.4) were key factors that increase the odds of households to have access to improved source of drinking water. The following factors determine access of households to improved sanitation: being rich (OR 5.5), living in the Western region (OR 2), and head of household with higher education (OR 1.6). Overall, the odds of households living in rural areas to access water and sanitation was lower.

Conclusion

Afghanistan made substantial progress in provision of improved drinking water and sanitation, but the country is still lagging behind the rest of the world in achieving the SDGs. For greater impact of water and sanitation on health, we must ensure that the most vulnerable people such as the poorest, less educated and rural residents have access to water and sanitation. Therefore, equity should be considered in all WASH programmes. A national strategy and a budgeted plan for achieving WASH SDGs are essential to translate vision into actions.

Afghanistan National Health Accounts 2017

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Introduction

Afghanistan National Health Accounts (NHA) is produced to track the flow of funds in the health sector. NHA is an important tool for understanding the status of health financing in the country and provides a framework for measuring the current health expenditure including the main stakeholders for a specified period of time. In this round of NHA, the System of Health Accounts (SHA2011) has been used. A full list of diseases and expenditure on diseases has been captured. It helps policy makers and decision influencers, as well as other stakeholders to understand the pattern of total health spending over a period of time; and devise appropriate health financing strategy to achieve Universal Health Coverage Goals of efficiency, equity and financial risk protection.

Methods

Production of Afghanistan health expenditure time series, followed the method of international classifications of Health Accounts and system of health Accounts 2011. The data was collected from all partners (financiers, agents, and service providers) both on and off budget. It also estimated household out of pocket expenditure collected during the household surveys. The team produced separate spreadsheet for each year considering the sources of the money, financing scheme and where the money is spent and on what services. Lastly, it was compared with macroeconomic data.

Results

Health expenditure in Afghanistan in 2017, as compared to the previous round of NHA 2014, has increased by 19%; and the increment has significantly affected all components of health expenditures. The health expenditure in 2017 was around 2.4 billion USD, accounting for 11.9% of GDP. The highest proportion of expenditure comes from the household out of pocket expenditure,

accounting for 75% of current health expenditure (CHE), with an estimate of 1.8 billion USD. The second largest health expenditure is from donors, which amounts to 470,279,774 USD and represents 19.4% of CHE. The donor funding is spent on two different schemes, namely direct foreign finance transfer and transfer distributed by government. The expenditure on health from government domestic revenue is estimated at USD 123,391,485, accounting for 5 % of CHE. The production of disease specific health expenditure compared to previous rounds of NHA is another significant contribution of this round of the NHA.

Conclusion

This study provides the strongest evidence for policy and decision makers; and it is highly recommended to continue investigating new revenue generation strategies and increase government domestic allocation to health, which is most needed as Afghanistan is highly dependent on donors and household out of pocket expenditure on health, that may lead people to catastrophic consequences and to poverty. It is also recommended to implement risk protection mechanism to decrease household expenditure, promote rational medicine use and improve drug supply.

Keywords

Health Expenditure, National Health Accounts 2017, System of Health Accounts 2011, Afghanistan NHA

Afghanistan Health System: A Comparative Study with Its Four Neighbouring Countries

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Introduction

A well-functioning health system is essential to achieve universal health coverage, especially in low and middle income countries. After World Health Report 2000, many policy makers around the world have expressed specific interest in obtaining better understanding of how health system in their countries work; and they are trying to identify the potential scope for improvement. This study aims to provide an overview of current situation of Afghanistan and its four neighbours' health system and highlights the challenges existing in their system as compared to others.

Methods

In this level ecological study, we sought to describe the current situation of Afghanistan, and its four neighbours' health systems (Iran, Pakistan, Uzbekistan and Tajikistan) in three dimensions (governance, financing and service delivery). We also indicated main reforms which took place in past decades in these countries. To compare these five countries' health systems, we applied EMRO-WHO framework 2017. This framework helped us to investigate countries' health systems in three main domains: health determinants and risks, health status, and health system response.

Results

We found that Iran has relatively better situation among other four countries, except for some indicators such as HIV therapy, number of physician, nurses and midwives, communicable diseases, literacy rate and improved sanitation facilities that Tajikistan and Uzbekistan have overtook Iran. Afghanistan has almost the worst situation in all indicators except for per capita total expenditure

and general government expenditure on health, percentage of stunted and wasted under five children, percentage of anemia among women, tobacco usage, neonatal mortality, morbidity rate for tuberculosis, HIV and hepatitis. While Pakistan is lagging behind in these areas as compared to others.

Conclusion

The result of this study showed that, Afghanistan health system is not functioning well in relation to indicators compared to its neighbours. We highlighted potential areas for further reforms or benchmarking of successful plans to improve the health system performance in these five countries.

Exploring Caregivers' Practices on Care for Child Development in Afghanistan

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Introduction

The development of Under-5 children in Afghanistan is poor due to weak care for child development practices. Afghanistan recent count down for Early Childhood Development (ECD) showed that 42% of young children are at risk of poor development. The objectives of this study were to explore the caregivers' practices on care for child development and propose evidence-based solutions.

Methods

We used a qualitative method to explore caregivers' practices on care for child development in 4 provinces of Afghanistan. The sites were selected purposively to provide a snapshot of the current practices, and visited by trained assessors using two methods of direct observation and structured interview with 40 caregivers of children aged 3-7 years at ECD centres (during Apr-June 2019).

Results

Generally, 88% of caregivers looked at and talked with their child, 63% fed their child less than 5 times per day, 53% did not play with their child, 43% did not get them to smile, 45% talked about to do/not to do, and 23% of them grabbed the objects away from child and scolded them.

Conclusion

There is an urgent need for multi-sectoral early childhood development interventions recommended by WHO and UNICEF, and endorsed by Ministry of health.

An Analysis of the Global Fund Investments in Human Resource for Health: Afghanistan

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Introduction

Since 2004, Global Fund (GF) has been investing in controlling HIV/AIDS, TB and Malaria in Afghanistan. The profile of health workforce has positively changed between 2004 and 2017. The aim of this case study is to review and analyse the HRH investments of GF in Afghanistan between 2004 and 2017 in order to gain an insight regarding the types of activities conducted for HRH and their impact on overall health system of the country.

Methods

This study employed a mixed method approach. The study started with a desk review, and then secondary data on grant budget and expenditure were acquired from the Global Fund. Finally, key informants' interviews were conducted locally to elicit information on active grants in the country. In this case study, 19 grants of the Global Fund were reviewed in the period of 2004-2017. This study specifically focused on HRH-related components such as human resources (HR) investment, training, and technical assistance (TA).

Results

Overall, about 230 million US dollars were budgeted to be invested by GF in Afghanistan between 2004 and 2017; out of which about 36% went to the budget lines of HR, training and TA. Of this, 23% was invested in HR activities, 9% in training and 4% in TA, alongside other non-HRH budget lines. Expenditure data from the EFR showed that about 152 million US dollars were spent in the same period on HR constituting 26% of total expenditure, 7% spent on training and 4% on TA. HR spending accounted for about 26% of total expenditure over the period of 2004-2017. Despite in-service trainings, GF also initiated the CHNE pre-service training program, that graduated 673 community nurses in 19 provinces of the country. There are limited documents regarding the early grants' (2004-2012) HRH activities.

Conclusion

Compared to Training and TA, more budget had been allocated to HR line. Overall, different donors including GF alongside the government contributed to the HIV, TB and Malaria health indicators' improvements. Many international donors and organizations invested in health workforce during this period. Thus, it is difficult to measure the impact of GF capacity building trainings, specifically short-term ones, on health workforce; and to track the performance of health outcomes resulted from GF investments.

Exploring Gender Disparities of Pulmonary Tuberculosis in Afghanistan: A Cross-Sectional Assessment

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Introduction

In Afghanistan, 62 percent of TB cases reported were women. In 2016, Afghanistan's National TB Program (NTP) with support from Challenge TB project, conducted a study to explore gender disparity in relation to TB prevalence in Afghanistan. The partners sought to determine if there was

also a gender imbalance in the proportion of presumptive TB patients and bacteriologically confirmed TB cases in Afghanistan.

Methods

A cross sectional study was employed and a random cluster sample of health facilities from 12 provinces was taken. The team reviewed records of all presumptive TB patients that were screened/tested for TB. Researchers collected data from presumptive TB register in Jan 2016 and entered the data into Epi Info, exported to SPSS and calculated odds ratios, confidence intervals, chi-square, and p-values.

Results

During Oct-Dec 2016, 20168 presumptive TB patients attended 12 provinces; and all were tested for acid fast bacilli (AFB). Of them, 12,354 (61.3%) were female with mean age of 34.7; and 7,665 (38.3%) were male with mean age of 37.7; and 147 (0.7%) presumptive TB patients in which gender was missed. All of them were tested for AFB bacilli. Consequently, health facilities diagnosed 657 (5.3%) bacteriologically confirmed TB cases (mean age 37.4) among female presumptive TB patients and 425 (5.5%) bacteriologically confirmed TB cases (mean age 39.4) among male presumptive TB patients. The proportion of bacteriologically confirmed TB case was equally distributed among genders, the p-value 0.47, odd ratio of 0.97.

Conclusion

The study discovered that, more women than men attended public health facility for screening when they had cough. Further, there was no difference in distribution of bacteriologically confirmed pulmonary TB cases among female and male presumptive TB patients. Also, there was no gender disparity of bacteriologically confirmed pulmonary TB cases. This research will facilitate future interventions to enhance TB screening among Afghan men; and to find out why fewer men attended public facilities.

Driver's Perception on the Risk Factor of Road Traffic Accident in Afghanistan

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Introduction

Road traffic accidents (RTAs) are a global public health problem. Worldwide, the number of deaths due to road traffic crashes is estimated at almost 1.2 million every year; while the number of injuries could be as high as 50 million (WHO, 2004).

Death due to RTAs in Afghanistan is about 2.5 per 10, 000 vehicles (EMRO Report status on Road safety). Afghanistan is third highest country for RTAs in EMRO region after Egypt and Libya (EMRO Report status on Road safety).

Objective

To identify the Risk factors of road traffic accident on major highways in Afghanistan

Methods

Cross-sectional study design and purposive sampling method was used for this study. We interviewed with only 120 drivers who had a road traffic accident during last five years in Kabul-Jalalabad, Kabul-Kandahar, Kabul-Mazar-e-Sharif and Kabul-Khost main roads and enrolled in the study between February and June 2018. A semi structured questionnaire was used to interview the drivers.

Results

This study revealed that 73 percent of the participants were in almost middle age (21-40 years); while economically active participants were highly prone to road traffic accidents.

This study showed that 63 participants were illiterate. The study also showed that 55 (54%) drivers got driving training and 55 (46%) did not get any driving training. This study indicated that 77 percent of the participants had an accident in speed range of 41-120/km/hour, 52 percent had an accident in sunny weather and 35 percent had an accident in rainy and snowy weather. 41 percent of accidents happened in narrow and asphalt roads and 17 percent of accidents occurred in Asphalt roads. 96% percent of drivers shared that there are no traffic signs in these high ways.

Conclusion

Over 40-year-old people can drive in high and main roads. Special literacy courses for the drivers should be initiated. Driving professional training minimum 15 days must be obligatory for getting driving license. Speed limitation policy should be Implemented. All high way roads should be wide and double in order to reduce the risk of an accident. Specific sign boards in curve areas must be installed to reduce accident in curve area.

***Reproductive, Maternal, New-Born and
Child Health***

Session 2

Factors Associated with Antenatal Care Visits in Afghanistan: Secondary Analysis of Afghanistan Demographic and Health Survey 2015

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Introduction

Afghanistan is one of the countries with the poorest maternal mortality ratio in the world. Inadequate utilization of antenatal care (ANC) services increases the risk of maternal mortality. This study aimed to identify the factors associated with ANC visits in Afghanistan, by analysing the secondary data from the Afghanistan Demographic and Health Survey (AfDHS) 2015.

Methods

The AfDHS 2015 was the first standard demographic and Health Survey in Afghanistan. The subjects of this study were 18,790 women who had at least one live birth in the last five years. The data of socio-economic factors, demographic factors, cultural factors, and the number of ANC visits were taken from the AfDHS 2015 dataset. To identify the factors associated with ANC visits, logistic regression analyses were performed.

Results

Of the 18,790 women, 56.2% had availed of at least one ANC visit. Most women were 20-29 years old (53.3%), poor (66.3%), had 2-4 children (43.9%), lived in rural areas (76.1%), and had no education (85.0%) or no job (86.7%). Most women revealed that husbands made a decision about their healthcare and that getting permission from their husbands was a major challenge. Multivariate analysis showed that age, ethnicity, area of residence, parity, women's education, husband's education, literacy, having a job, wealth, the decision maker for healthcare, and difficulty in getting permission from the husband were significantly correlated with availing of the ANC visits.

Conclusion

This study showed that the proportion of women, who availed of ANC services, was very low in Afghanistan and that not only the socio-demographic factors but also the cultural factors were associated with ANC visits. The Afghanistan government should improve the education programs at schools as well as at healthcare facilities, for both men and women. To augment women's propensity to take a decision, the programs for women's empowerment need to be supported and extended across the country.

Understanding Pathways Leading to Stillbirth: The Role of Care-Seeking and Quality of Care Received During Pregnancy and Childbirth in Afghanistan

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Introduction

The underlying pathways leading to stillbirth in low- and middle-income countries are not well understood. Context specific understanding of stillbirth is needed to prioritise interventions and identify barriers to implementation and uptake. We explored the stillbirth experiences of parents and healthcare providers in Afghanistan to investigate the contribution of contextual, individual, household and health system factors.

Methods

In-depth interviews were done with bereaved parents, female elders, healthcare providers, and government health officials in Kabul province, Afghanistan. We used thematic analysis to identify contributing factors and develop a conceptual map describing pathways leading to stillbirth.

Results

Low levels of healthcare utilisation was a critical factor contributing to stillbirth underscored by women's lack of decision making power, sociocultural barriers to access, lack of perceived need and benefit of care, and low knowledge of pregnancy self-care. Perceptions of quality of care and providers' behaviour also affected health service use. Unmanaged maternal conditions heightened women's risk for stillbirth. Socio-cultural factors including perceptions about caesarean sections led to refusal of medical intervention and then stillbirth. Low quality of care particularly inadequate detection of maternal conditions, advice during pregnancy, and harmful provider practices contributed to stillbirth. Inappropriate referral and inadequately equipped facilities led to delays in receipt of life saving care. The impact of the conflict created barriers to accessing care and exposed pregnant women to substances with detrimental effects on the foetus.

Conclusion

There are multiple and complex pathways to stillbirth in Afghanistan. Efforts are needed at the community level to facilitate care seeking and raise awareness of risk factors, and at the facility level to strengthen quality of antenatal and childbirth care, ensure respectful care, and reduce treatment delays.

“The midwife advised me to give birth in the clinic. If not, my baby might die, again”
A Qualitative Study of Women’s Utilization and Experience of Professional Midwifery Services in Rural Afghanistan

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Introduction

Afghanistan has one of the highest maternal and neonatal mortality ratios in the world, in some areas more than 60% of women have no access to a skilled birth attendant. The NGO-based project Advancing Maternal and New-born Health in Afghanistan has supported education of midwives since 2002, according to Afghanistan’s national plan for midwifery education.

Objectives:

This study explores women’s experiences with professional midwifery care in four villages covered by the project to uncover challenges and improve services in rural areas of the country.

Methods

An explorative case study including 14 in-depth interviews and four focus group discussions were conducted. In total, 39 women in Kunar and Laghman provinces participated. Data generated through the interviews, discussions and observations was analysed with a thematic content analysis.

Results

The women reported that midwives’ life-saving skills and promotion of immediate skin-to-skin contact and breastfeeding were important reasons for choosing giving birth in a clinic. The fact that the trained midwives are familiar and respected persons in their communities was considered important. Relatives’ disapproval, shame, and transportation and security problems were important obstacles to women's delivery in the clinics. Moreover, some women experienced rudeness and neglect from the midwives.

Conclusions

Professional education of locally recruited midwives seems successful in promoting utilization and satisfaction with maternal and new-born health services in rural Afghanistan. Nevertheless, some women’s experiences of disrespectful care point at the need for understanding the conditions for, and improving, the quality of such services. More focus on communication, as well as in-service training should be prioritized during the education of midwives.

Home-Based Records for Poor Mothers and Children in Afghanistan: A Cross Sectional Population-Based Study

Sayed Saeedzai, Iftexhar Sadaat, Zelaikha Anwari, Shafiqullah Hemat, Shakir Hadad, Keiko Osaki, Megumi Asaba, Yohei Ishiguro, Rasuli Mudassar, Jane Machlin Burke, Ariel Higgins-Steele, Khaksar Yousufi, Karen Margaret Edmond

Introduction

No studies have examined distribution, retention and use of maternal and child health (MCH) home-based records (HBRs) in the poorest women in low income countries. Our primary objective was to compare distribution of the new Afghanistan MCH HBR (the MCH hand book) to the poorest women (quintiles 1–2) with the least poor women (quintiles 3–5). Secondary objectives were to assess distribution, retention and use of the handbook across wealth, education, age and parity strata.

Methods

This was a population-based cross sectional study set in two districts of Afghanistan from August 2017 to April 2018. Women having a child birth in the last 6 months were eligible for this study. Multivariable logistic regression models were constructed to adjust for clustering by district and potential confounders decided a priori (education, age, parity, age of child, sex of child) and to calculate adjusted odds ratios, 95% CI and corresponding p-values. Wealth categories were 'poorest' (quintiles 1,2) and 'least poor' (quintiles 3,4,5).

Results

1728/1943 (88.5%) mothers received handbook. The poorest (633, 88.8%) had similar odds of receiving a handbook compared to the least poor (990, 91.7%) (aOR 1.26, 95%CI [0.91–1.77], p value 0.165). Education status (aOR 1.03, 95%CI [0.63–1.6 8], p-value 0.903) and age (aOR 1.39, 95%CI [0 .68–2.84], p-value 0.369) had little effect. Multiparous women (1371, 91.5%) had a higher odd than primiparous women (252, 85.7%) (aOR 1.83, 95% CI [1.16–2.87], p-value 0.009). Use of handbook by providers and mothers was similar across quintiles. Ten (0.5%) women reported loss of handbook.

Conclusions

We were able to achieve almost universal coverage of new MCH HBR in our study area in Afghanistan. The handbook will be scaled up over the next three years across all of Afghanistan and will include close monitoring and assessment of coverage and use by all families.

Keywords: Home-based records, Personal health records, Mother, Child

Assessment of Complications of New-born in Twin Pregnancies in Malalai Maternity Hospital, Kabul, Afghanistan

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Introduction

Twin pregnancy is a special condition that causes obstetric complications including life-threatening conditions. Our objective is to assess new-born complications among twin pregnancies.

Methods

An analytical cross-sectional study has been done within two months from 21/01/2016 to 21/03/2016. All twin and singleton pregnancies over 28 weeks delivered in Malalai Maternity

Hospital (MMH) were included in the study. New-born complications were studied for these two groups, and these groups have been compared from different aspects including gestation age, new-born weight and new-born death. After analysis of the data, odds ratio of the data has been calculated.

Results

Within the two months 4,035 pregnant women delivered in MMH comprises 63 twins' cases. Therefore, twins rate is 15 in 1000 pregnancies. Average age of mothers was 26.2 ± 4.8 . This study found that twin pregnancy is a risk factor for new-borns with low birth weight (OR: 26.7; 95% CI: 22.6-31.1), premature labor (OR: 18.7; 95%CI: 15.4 -22.6) and new-born deaths (OR: 14; 95% CI: 6.1 to 34.3).

Conclusion

New-born complication in twins is higher than singletons especially premature deliveries significantly increase new-born death.

Keywords

Twins Pregnancy, Premature Labor, Low Birth Weight, New-born Death

Maternal Mortality Ratio and Its Causes During Five Years at Tertiary Care Hospital of Malalai: A Cross-Sectional Study

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Objective

To find maternal mortality ratio and to describe the causes of mortality at the largest maternity care hospital of Afghanistan, Malalai hospital, during five years.

Methods

This is a cross sectional study which was conducted at Malalai Maternity Hospital. A retrospective review of validated record of the hospital registers from 21 March 2011 till 19 March 2016 was conducted. All women aged 15- 49 who were pregnant or in their postpartum period (until 42 days after delivery), admitted to this hospital was included in the study. A total of 136814 women met the inclusion criteria. The data was analyzed in excel 2016.

Result

A total of 58 maternal deaths recorded (0,04%), Hemorrhage remains the leading cause with 47%, followed by Eclampsia 30%, Anesthetic complications 11%, 7% due to Emboli of Amniotic fluid, 3% sepsis and 2% Severe preeclampsia.

Maximum maternal deaths of 55,2% was reported in women of 18-34 years old, followed by 38% in 35-40 years, 3,4% in less than 18 years and 3,4% in more than 40 years. Maternal death was high among multi gravidas (65,5%). According to the trimesters of pregnancy, the highest 84,48% was in third trimester, 8,62% in second trimester and 6,80% occurred during postpartum period. The highest number of deaths (59%) were after vaginal rout delivery and 41% were after Cesarean deliveries. 60,4% of total maternal deaths didn't receive antenatal care, who lived mostly in rural areas (53,5%).

Conclusion

Considering the setting of this study (tertiary center), the five-year maternal mortality ratio still remains very high. A strong need to improve the maternity care in tertiary level and community based education (pregnancy complications and women decision making) is felt. Antenatal care and provision of family planning services among other factors, can drastically decrease the preventable causes of maternal deaths to reduce the mortality.

Keywords

Maternal mortality ratio, Malalai maternity hospital, postpartum period.

Trends of Cesarean Section in Obstetrics & Gynecology Department of FMIC in Two Years

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Introduction

Cesarean section rates have been widely increasing in the world. Unnecessary caesarean sections can increase the risk of maternal morbidity; neonatal death and neonatal admission to intensive care unit. There is no consensus on the "optimal" rate of caesarean delivery at the population level. Although WHO has suggested values between 5% and 15% of live births, the basis on which these thresholds have been proposed is not clear. French Medical Institute for Mothers and Children is well organized and clear in its vision and mission about the safety, quality & evidence based care of the patients, thus cesarean deliveries are tried to be according to the benchmark. Our objective was to analyze the trend and indications of all cesarean sections performed during two years in the Obstetrics and Gynecology department of a tertiary care hospital of Kabul, Afghanistan.

Methods

Cross sectional descriptive study design was used in this study.

Result

The data showed that there were 1741 deliveries during study time period, out of those 992 (56.97%) were normal vaginal deliveries and 749 (43.02%) were delivered by cesarean section. Data of indications were reviewed from 730 files and 19 files were not found. Based on this data, the causes of cesarean section were divided into four categories: maternal factors (42.7%), fetal factors (38.0%), feto-maternal factors (18.1%) and miscellaneous causes (1%). The major maternal causes include; maternal request, previous scar, antepartum hemorrhage and failure of induction. Moreover, the major causes of fetal factors were fetal distress, breech presentation and multiple pregnancy. Failure of progress and oligohydramnios were the most significant indication for feto-maternal factors.

Conclusion

In conclusion, the rate of deliveries by cesarean section were more than the set benchmark. This can be attributed to the nature of this center, as FMIC is a referral center and mostly manages complicated Obstetric cases. In addition, standardization of indication of cesarean deliveries, frequent audits and formulation of protocols in hospital will aid in reducing the rate of cesarean deliveries. Further studies should be done to elaborate the reasons of maternal request for cesarean section and accordingly address them. This in turn may reduce the number of cesarean deliveries.

Assessing the World Health Organization (WHO) Family Planning Guidance and Tools Integration and Institutionalization into the National Family Planning Programme in Afghanistan

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Objectives:

The aim of this study was to answer the following questions:

1. Are WHO materials used to develop national policies?
2. Are WHO materials implemented within the programme?
3. What barriers and facilitators influence the use of WHO materials and contribute to any non-alignment of national FP policies, strategies, plans and practices with current WHO guidance.

Methods

This was mixed method approach- both qualitative and quantitative study conducted in 3 provinces of Afghanistan in Oct-Nov 2018. Document review was done to measure the fidelity of published national materials to WHO guidelines. In-depth interviews were held with 12 national and provincial experts and trainers, who are involved in the implementation of family planning programs and services and analyzed in the light of Consolidated Framework for Implementation Research (CFIR). The assessment of family planning practice at facility level was done in five percent of randomly selected health facilities providing FP services in the 3 purposively selected provinces of Kabul, Herat and Nangarhar using WHO tool "Provider Survey of Contraceptive Practice".

Result

The study found that MoPH of Afghanistan used the most recent WHO materials to update national FP policies, strategies and guidelines. The scale and quality of the evidence was the most compelling factor among the majority of participants for using of WHO recommendations. However, nearly all participants indicated lack of training and burden of workload as reasons for not offering some available FP methods and proper counselling. The lack of an appropriate plan for distributing FP commodities, coupled with insufficient capacity building and supervision at provincial levels are additional barriers to FP service implementation.

Conclusion

Though the national guidelines on FP in Afghanistan are mainly developed based on WHO recommendations and efforts have been made to distribute them in facilities, availability and adherence to recommended practices is a concern. Thus, it is recommended to consider viable strategies to improve contraceptive practice at health facility level.

Prevalence of Anemia Among Pregnant Women in Their 3rd Trimester in Kabul: Results from A Tertiary Hospital

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Introduction

Anemia is a common condition during pregnancy. This study was conducted to estimate the mean hemoglobin level and prevalence of anemia among pregnant women in their 3rd trimester who came for delivery to a tertiary public hospital in Kabul, Afghanistan.

Methods

A cross-sectional study was conducted in the maternity ward of Isteqlal hospital, using random sampling method. Data were collected through interview with 623 pregnant women in their 3rd trimester, who came for delivery. Hemoglobin level in mg/dl was collected along with demographic as well as economic and pregnancy related variables.

Results

Mean hemoglobin level among our study population was 10.6mg/dl (SD=1.6), and anemia prevalence was 45.3%. Mean age was 26 (SD=5.9). Anemia prevalence was 50% both among illiterate and poor economic groups. Anemia prevalence was 54% among those with more than 4 pregnancies. 54% of those with previous miscarriage were anemic. About 70% of those with no antenatal care were anemic. Anemia prevalence was highest (68%) among those who reported no iron/folate supplement intake.

Conclusion

In our study mean hemoglobin level among pregnant women in their 3rd trimester was below the lower limit of normal hemoglobin among pregnant women, and about half of women in our study were anemic, which shows the gravity of this condition. Anemia was more prevalent in low literacy level and poor economic status groups which shows the significance of these factors in developing anemia among pregnant women. Anemia prevalence was high among those with no antenatal care and those who did not receive iron/folate supplement. Provision of iron/folate supplements may significantly decrease the anemia prevalence among pregnant women in short term, while increasing literacy level of girls and women may have a significant effect in the long term.

Keywords

Prevalence, Anemia, Pregnant, Women, Kabul, Tertiary Hospital

Short-Term Outcomes of Term Neonates with Birth Asphyxia in NICU at French Medical Institute for Mothers and children.

Dr Ahmad Farid Faqiri, Dr Amena Haqbeen, Dr Nooria Atta, Dr Naim shafaq, Dr Sohil Karim

Introduction

Birth asphyxia is the fifth leading cause of death in children under 5 years of age and it is a great challenge on the health system. As the WHO has estimated, 4 million new-borns die during the neonatal period every year and more than 90% of these deaths occur in under developed countries. Three major causes accounting for these deaths are: infection (28%), prematurity (26%) and birth asphyxia (23%).

Objective:

To study the short-term outcome of new-born with birth asphyxia and to provide a description of the associated factors responsible for outcome of asphyxiated new-borns in FMIC.

Methods

It is a cross-sectional descriptive design. The information collected from all existing medical records of asphyxiated patients who were admitted to Neonatal Intensive Care Units from January 2018 through December 2018. Term neonates who have had late cry or APGER score less than 7 at 5th minutes of life, weighing more than 2 kg were included in this study.

Results

Of total 234 NICU admissions, 23 (9.8) babies were asphyxiated. The majority of patients were males 17 (73.9%). In this study, 30.4% of babies were admitted to neonatal intensive care units within 6 hours, 39.1% between 6 to 24 hours and 30.4% more than 24 hours from delivery. Early admission to NICU had better outcome compared to late admission. Among 23 new-borns with birth asphyxia that fulfilled the inclusion criteria, 5 (21.7%) new-borns died. Of which, there was no mortality in HIE stage I and stage II, but in HIE stage III there were 5 (31.3%). The recovery rate of HIE stage I, HIE stage II and HIE stage III were 100%, 100% and 68.8 respectively. Mortality and morbidity were more common in out born babies compared to inborn babies.

Conclusion

After neonatal sepsis and prematurity, birth asphyxia is the commonest cause of hospital admission of a new-born to NICU. It has been also found that early referral has better outcome.

Keyword

Birth asphyxia, short-term outcome, neonatal sepsis

Non-Communicable Diseases

Session 3

Afghanistan Non-Communicable Diseases and Injuries Poverty Commission - Preliminary Findings

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Introduction

The Afghanistan Non-Communicable Diseases and Injuries (NCDI) Poverty Commission was established in 2017 by the Ministry of Public Health (MoPH) with support from the Organization for Research and Community Development (ORCD) and collaboration with the Lancet Commission on Reframing NCDs for the Poorest Billion and Partners in Health's NCD Synergies. This Commission analyses the burden of NCDs in Afghanistan particularly on rural or poor populations, assesses service availability, and recommends locally-appropriate, cost-effective, and highly-equitable health-sector interventions through evidence-based priority-setting.

Methods

Following extensive review of available literature on NCDs and risk factors in Afghanistan, the commission conducted secondary analysis on the IHME Global Burden of Disease (GBD) Studies in 2016 and 2017. National surveys and government policy documents were analysed to understand policy framework for NCDs. Service packages were assessed to understand service organization, integration, and coverage.

Results

This commission's analysis showed that the proportion of disability-adjusted life-years (DALYs) due to NCDs in Afghanistan has risen dramatically from 38.1% in 1990 to 59.2% in 2016. In 2016, 37.8% of overall DALYs and 45.5% of mortality were attributed to NCDs. Additionally, 21.4% of overall DALYs and 21.1% of mortality were due to injuries, ranking Afghanistan the second highest in injury DALY rate globally. 56.6% of NCDs and 85.6% of injuries in DALYs occur before the age of forty. 58% of DALYs due to NCDs are attributed to conditions outside of traditional NCD monitoring frameworks (i.e., "4x4"), including severe conditions such as sickle cell disorders, congenital heart anomalies, depressive disorders, drug use disorders, and conflict and terrorism-related injuries. According to GBD Study 2017, 64.2% of NCD DALYs cannot be attributed to traditional behavioural and metabolic risk factors.

Conclusion

Afghanistan has affirmed its stance on NCDs in national policies and plans; however, the burden remains immense. Disproportionately affecting young and productive populations, this burden may not be prevented or addressed by current strategic frameworks alone. More information is required to determine national service availability, government financing, and socioeconomic and geographic variation of NCDs. This commission's findings support expansion of the NCDI agenda in Afghanistan. Further priority-setting and implementation of cost-effective and highly-equitable interventions for NCDs is highly needed.

Prevalence of Suicide, Depression, Anxiety and Psychological Distress in Afghanistan

Bashir Ahmad Sarwari

Objective

Ministry of Public Health (MoPH) of Afghanistan performed a National Mental Health survey in March 2018. The purpose of this survey was to provide accurate and updated estimation of the prevalence of common mental disorders and assessment/exploration of existing mental health care and gaps in the country.

Methods

This is a qualitative study. The protocol was based on the interview of the participants with three types of structure questionnaires, targeting three persons in each selected household: the women in charge of families as informant for her family members and one adult randomly selected. In total, 12666 persons have been surveyed for mental problems, 8890 adults and 3776 children in 16 provinces.

Result

Prevalence of 12 months' depression is 4.86%, while 2.78% for Generalize Anxiety disorder (p-value <.0001). Assessed by household informant, Depression was 3.64%, Life time prevalence of suicide thought found to be 7.25%, suicidal plan in life time 3.96%, suicide thoughts in past 12 months reported by 2.26% of the participants and life time suicide attempt was 3.43%. The people suffering from PTSD have 9.58 times more the risk of 12 months' suicidal thoughts. Overall, prevalence of High psychological distress in last month was 47.72% and last month substantial impairment of social role due to mental health was 24.30% (P-value <0.0001).

Conclusion

Afghan people are very much exposed to trauma and PTSD is frequent in contrast to other disorders such as clinically significant major depression disorders or generalized anxiety, which are at the rates that are usually reported in the literature in other countries. Although co-morbidity is frequent. Psychological distress is very high which means that have high level of Anxiety-Depression which do not qualify for clinical significant disorder. Our results suggest that, one out of two Afghans is suffering from psychological distress and one out of five is impaired in his or her social role because of mental health problems.

Neuroprotective Effects of Co-Administration of Coenzyme Q10 and Vitamin-E in Chronic Cerebral Hypoperfusion-Induced Neurodegeneration in Rats

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Introduction

Alzheimer's disease (AD) is the most common type of neurodegenerative diseases and the leading cause of dementia in the elderly. Currently, there is no prevention, cure or drugs to slow down the progression of AD. Numerous evidences have revealed the presence of oxidative stress in the beginning and progression of AD. In spite of significant results in experimental studies, which used

single antioxidant in AD models, clinical trials have failed to recapitulate the promising outcomes documented in animal studies. This study assessed the neuroprotective effects of combination of CoQ10 with vitamin E in Chronic Cerebral Hypoperfusion-induced neurodegeneration (CCH-ND) rat model.

Methodology

After acclimatization, 27 Sprague Dawley rats weighing 200-250 g were divided into six groups. Group A – sham control, Group B – Two vessel occlusion (2VO), Group-C 2VO+ Vit E, Group-D CoQ10, Group E- CoQ10+Vit E and Group F treated with coconut oil as vehicle. On the 8th week, all the rats were tested by Morris water maze cognitive test and then euthanized and the hippocampi were isolated. Viable neuronal cell count in the hippocampal region was estimated. The Isoprostane F2 (F2-IsoPs) levels were assessed in the brain homogenates to quantify the oxidative stress status.

Results

There was significant difference in neuronal cell death, memory and learning, and F2-Isoprostane (oxidant) level in untreated 2VO group compared to the treated and sham groups. However, there was no statistically significant difference in neuroprotective effects of combination of vitamin E with CoQ10 and each one alone.

Conclusion

To conclude, combination of antioxidants (Vit E and CoQ10) improved memory, neuronal cell viability and decreased antioxidant level, same as using each one alone and sham operated group in animal models of CCH.

Exploring The Use of Tobacco Among School Age Students in Kabul City, Afghanistan

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Introduction

Tobacco use is a major preventable cause of premature death and disease worldwide. Approximately 7 million people die each year due to tobacco-related illnesses, a figure expected to increase to more than eight million a year by 2030. It is estimated that more than three quarters of these deaths will be in low- and middle-income countries.

Objective

To systematically monitor youth tobacco use (smoking and smokeless) and tracking key tobacco control indicators.

Method

Global Youth Tobacco Survey (GYTS) is a cross-sectional, nationally representative school-based survey of students in grades associated with ages 13 to 15 years. GYTS uses a standard core questionnaire, sample design, and data collection protocol. The GYTS employs a standard methodology with self-administered questionnaire.

Results

Data are presented from 25 schools in Kabul city. Current use of any tobacco product ranges from 10.1% to 5.6%, with high rates in boys, nearly 25% of students, smoked their first cigarette before the age of 10 years. Exposure to advertising is high (75% of students had seen pro-tobacco ads); more than 43% of students were exposed to tobacco smoke in public places. Only about half of the students taught in school about the dangers of smoking and 47% of them think smoking is harmful to them.

Conclusion

The survey has proven the feasibility of an inexpensive, standardized, nationwide surveillance system for youth tobacco use. The survey can serve as a baseline for monitoring and evaluating national tobacco control efforts, 25% of students started smoking before age 10, so the school should have a strong IEC/BCC program in curricula; data shows that boys are more tobacco users than girls; it is double among boys, so preventive interventions should focus on adolescents especially adolescent boys. About half of students were exposed to second hand smoke in closed public areas; therefore, enforcement of law for banning of tobacco use in closed public places is vital.

Keywords

Students, School, Tobacco, Survey, Kabul

Detection and Comparison of Light Metals in Hair Among Workers of Different Industries

Using Particle Induced X-Ray Emission (PIXE) for Forensic Casework

Muhammad Rehman, Muhammad Waqas, Muhammad Saqib Shahzad, Saeeda Kalsoom, Javed Iqbal Bajwa, Amina Arif, and Muhammad Azmat Ullah Khan

Introduction

The study was planned to evaluate the deposition of some metals in the scalp hair of the people working in the particular environment. Scalp hair samples were collected from different industry workers including pharmaceutical, textile and paint industry and analyzed for the determination of aluminum (Al), calcium (Ca), potassium (K) and sulfur (S). Hair analysis provides a better assessment of light metals present in the surroundings, as well as monitoring of variation of metals from place to place.

Methods

The hair samples were collected from 21-55 year-old employees working in industry for more than four years. Workers with the age less than 20 years old and less than 4 years' working experience were not included in this study. Particle Induced X-ray Emission (PIXE) system was used to detect the light metals from hair and probable matches were searched through National Institute of Standards and Technology (NIST) library.

Results

The metals Al, S, K and Ca concentration was found maximum in the pharmaceutical industry workers, i.e. 575.1 µg/g, 190.7 µg/g, 11.1 µg /g and 9.1 µg/g respectively. The minimum concentration of these metals was found in paint industry workers, i.e. 103.7 µg/g, 8.87 µg/g, 2.3 µg/g, and 1.7µg/g respectively.

Conclusion

Light metal concentrations in hair samples showed a significant positive correlation. Our findings can play vital role for health departments and industrial environmental management system (EMS) authorities in policy making and implementation. Taken all together, the workers were facing minor health implications in these industries and needed immediate protective measures to remediate the current situation.

Association of Number of Deliveries with Intervertebral Disc Degeneration Diagnosed on Magnetic Resonance Imaging in a Tertiary Care Setting; An Analytic Cross Sectional Study

Fazel Rahman Faizi, Hidayatullah Hamidi, and Nooria Atta

Introduction

Intervertebral disc degeneration is a multifaceted entity characterized by anatomical and biochemical changes in the intervertebral disc. Many factors play role in development of intervertebral disc degeneration which is a common cause of low back pain with significant socioeconomic and medical care burden.

Objectives

To find the association of number of deliveries with extent and severity of intervertebral disc degeneration.

Method

A cross sectional analytic study was conducted in radiology department of FMIC with consecutive sampling method of adult female patients undergoing lumbar spine MRI from January 2019 up to June 2019. Patients with congenital and infectious disease of spine were excluded from this study as well as patients with neoplasm.

Results

A total of 150 female patients with mean (\pm SD) age of 41.7(\pm 13.2) ranging 18-80 were included in this study. The median number of deliveries were 5 (IQR, 2-6). The mean (\pm SD) BMI of the patients was 27.2 (\pm 5.1) ranging 16.9-41.2. About 80.3% of patients in this study were housewives. Only 9.1% of the participants reported regular exercise and almost no one stated habit of smoking. Lower back pain with sciatica was the most common complaint (54.7%). The frequency of three level disc degeneration in women having history of 0-3 deliveries was 23% while this frequency in women having 4-6 deliveries was 59.6% and in women with 7-13 deliveries was 75%. The association between number of deliveries and disc degeneration was significant ($p < 0.001$). Meanwhile there was significant association between number of deliveries with disc bulge/ herniation ($p = 0.02$), ligamentum flavum hypertrophy ($p = 0.01$) and facet arthropathy ($p = 0.04$). There was no association between number of deliveries with Schmorl's node, endplate degeneration, annular tear, vertebral height reduction, listhesis and canal stenosis.

Conclusion:

The number of deliveries has significant association with intervertebral disc degeneration, disc bulge/herniation, facet arthropathy and ligamentum flavum hypertrophy. In this study, the women with more number of deliveries had higher number of disc degeneration.

Keywords

Intervertebral disc degeneration, delivery, Magnetic Resonance Imaging

Proportion and Histopathological Characteristics of Invasive Ductal Carcinoma among other Female Breast Cancers at a Tertiary Care Hospital, Kabul, Afghanistan

Ahmad Waleed Haidari, MD, Jamshid Jalal, MD, PhD, Ahmed Nasir Hanifi, MD and Ms. Sehrish Sajjad

Introduction

Breast cancers are one of the commonest kind of malignancies in females all over the world. Invasive Ductal Carcinoma of no special type (IDC-NST) is the most frequent type among all. The purpose of this research was to estimate the proportion and histopathological characteristics of IDC-NST among other female breast cancers, who were referred to a tertiary care hospital in Kabul, Afghanistan.

Methods

A retrospective chart review of non-probability consecutive sampling from 205 breast cancer cases, recruited between January 2015 and September 2018 was carried out to achieve the study objectives. All the cases were diagnosed and classified as breast carcinomas based on histopathological findings, either in Aga Khan University Hospital, Karachi, Pakistan or French Medical Institute for Mothers and Children, Kabul, Afghanistan. Descriptive and inferential statistics were performed based on the type and level of available data.

Results

Mean age of participants was 43.64 (± 0.836) years (13 to 80). IDC-NST was the commonest type (84.8 %). Grade II (54 %), total of stage 2 and 3 (93.9 %) were the most frequent ones at the time of diagnosis. Significant association between age and types of the tumors (p -value=0.034), age and tumor grade (p -value=0.024), metastatic lymph nodes and pathological stage (p -value=0.01) were found; whereas no statistical significant association was found between age and tumor stage (p -value=0.427).

Conclusion

Our findings showed high incidences of IDC-NST among other female breast cancers, as well as Grade II and Stage 2 and 3 were the most common pathological grade and stages. The histopathological characteristics were the same as other researches all around the world.

This is a primitive research to report frequency of IDC of NST in Afghanistan based on histopathological findings. As this is a basic study, further studies in big cities determining frequency, radiological findings, pathological grade and stage, risk factors and associated disease should be conducted. In addition, by increasing awareness among people about chief complaints, risk factors and factors associated with the disease, we could decrease the stage of the disease, which leads to high mortality rate.

Keywords

Invasive Ductal Carcinoma of no special type (IDC-NST), Female breast cancers, Histopathological grade and stage, Kabul.

Chronic Lead Exposure in Beninese Children

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Introduction

Lead is a well-known neurotoxic metal. Children are particularly vulnerable to its adverse neurocognitive effects. Within a birth cohort, elevated Blood Lead Levels (BLL) (>50 µg /L) were observed in one-year-old infants in Benin in 2011-13. Sources of exposure included the presence of paint chips in the house and consumption of hunted meat killed by lead bullets. We aimed to investigate lead exposure in the same children at six years of age in 2016 -18.

Methods

A total of 424 children with BLL at one year of age who reassessed at six years of age were included in the analysis. Blood samples were drawn and analyzed by inductively coupled plasma mass spectrometry. The study took place in the district of Allada, Benin. We estimated geometric mean BLL. Using the Wilcoxon rank-sum test BLL between boys and girls were compared. The proportion of children with BLL above 50 µg/L and above 100 µg/L are described and compared at both periods.

Results

Among 424 children (208 boys and 215 girls), the geometric mean BLL was 56.5 µg/L (95% CI: 53.5-59.7) at one year of age, and 56.3 µg/L (95% CI: 53.9 - 58.6) at six years of age. The distribution of BLL between boys and girls was not statistically different at any given age. The proportions of children with BLL >50 µg/L at one and at six years of age were not statistically different (55.0% versus 59.7%, respectively; McNemar's $p=0.1183$). However, the proportion of children with BLL >100 µg/L was higher at one year of age than at six years of age (14.2% versus 8.3%, respectively; McNemar's $p=0.002$).

Conclusion

Children continue to suffer from elevated BLL and thus constitute an important public health problem in this population of children, and deserves preventive strategies. Sources of exposure may evolve and merits further investigation.

Keywords

Lead poisoning, Heavy metal, Africa, Public health

Applying Z-Plasty and Radical Excision of the Overgrowth Tissues for A Patient with Congenital Constriction Ring Syndrome of the Limb with Progressive Lymphedema Causing Vascular Insufficiency and Risk for Amputation: A Case Report

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Introduction

Congenital constriction ring syndrome is an uncommon congenital anomaly characterized by multiple incapacitating manifestations. It may affect the bone, muscle, nerves, and vascular bundles according to the depth of the constriction ring. Incidence is 1:15,000 live birth.

Case Report

Here we present a 7-month-old patient with a double congenital constriction ring syndrome in the left lower limb at risk for amputation, in which the constriction rings were released surgically using the extensive approach. A 3-stage surgery was performed. In first stage, a z-plasty of the anterolateral portion of the proximal constriction ring was performed, in second stage, a z-plasty of the posteromedial portion of the proximal constriction ring with anterior portion of the distal constriction ring was performed, and in last stage, a z-plasty of posteromedial portion of the distal constriction ring plus Achill elongation with posterior capsulotomy, along with debulking of the foot was done. A follow up of one year after surgery revealed functional foot, restoration of blood supply, and preservation of the foot from amputation.

Conclusion

This procedure allowed to establish normal circulation in the limb with congenital constriction ring syndrome after birth. Removal of the congenital constriction ring improve the distal tissue vascularity and avoid from progressive deformity and risk of amputation.

Keywords

Congenital constriction ring syndrome, Amputation.

Clinical Practice

Session 4

Clinical Staging and Assessment of Respectability of Abdominal Digestive System Organs Cancer

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Introduction

Evaluation of clinical staging in patients admitted to Aliabad University Hospital for the treatment of digestive system organs malignancies and the assessment of mentioned tumors respectability.

Methodology:

This is an observational descriptive case series study carried out at the surgical ward of Aliabad University Hospital on 102 patients suffering from abdominal digestive system malignant tumors. Patients with abdominal malignancy out of digestive system are excluded from study. Data were collected from patient's files; laboratory and imaging tests were used for clinical staging and assessment of respectability of tumors by surgery.

Results

Ultrasound with a percentage of 91.14% and CT scan 70.56% were the most commonly used investigation test for detection of tumor extension and clinical staging. Generally, 47.9% of cases were in stage IV and non-operable. Among all tumors, stomach cancers with a percentage of 60% were mostly arrived in non-resectable advanced stage III and IV. Surgically operable tumors formed 35.28% of all cases. The demographic distribution showed that most of cancer cases (56.9%) were diagnosed in patients over 50 years old and particularly in male sex (59.8%). Regarding localization of cancer and involved organ, colorectal area was the most common part (25.5%) comparing to all other organs.

Conclusion

Most of abdominal cancer cases attend to the hospital in very advanced stages that is not surgically resectable. The main reason for late presentation of abdominal cancer cases is lack of specialized investigation centers hence most cases are not diagnosed earlier and cannot take curable treatment. We recommend that all suspected cases of abdominal cancer to be investigated completely for determination of staging and selection of proper treatment.

Keywords

Digestive system cancer, Clinical staging, tumor respectability, Surgery ward of Aliabad University Hospital.

Brain Hydatid Cyst Cases in Neurosurgery Ward of Aliabad Hospital

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Introduction

Brain Hydatid Cyst is one of rare causes of Intracranial Space Occupying Lesion (ICSOL), Hydatid disease caused by the infestation of the larvae of Echinococcus. The definite hosts of Echinococcus are various carnivores, the common one is dog. Humans get infected through the feco-oral route by ingestion of food contaminated by dog feces containing ova of the parasite or by direct contact with dogs. Brain involvement with Hydatid disease occurs in 1–2% of all Echinococcus granulosus infections.

Objective

Isolated cerebral Hydatid disease is a rare manifestation of it and discuss their mode of presentation, radiological features, operative procedure and outcome. The literature concerning isolated cerebral Hydatid disease is reviewed.

Methods

Case series study was conducted using patients' files. Data was taken from patient files who were admitted to neurosurgery department of Aliabad hospital, from 2014 to 2018.

Result

There was a report of successfully operated 9 cases of Brain Hydatid Cyst from 2014 -2018. Of them 8 were females and 1 male. All of them had isolated cerebral Hydatid cysts. While their radiological features and surgical approaches were different. Patients' chief complaints were Headache (77%), Vomiting (35%), Convulsion (45%), Vision problem (30%), Motor deficit (50%), Dysphasia (19%), and Sensory disturbances (33%). Cyst localization was found mostly in left side of the Brain (63%). Operation procedure: After local Anesthesia, with Craniotomy and Dowling-Orlando technique 7 cysts were completely removed; however, 2 cases ruptured. Anthelmintic medicine before and after operation continued by consultation of Internist.

Conclusion

Brain involvement with Hydatid disease occurs in 1–2% of all Echinococcosis Granulose infections. Isolated cerebral Hydatid disease is a rare manifestation of it. In this report, we analyzed nine cases of isolated cerebral Hydatid cysts and discussed their mode of presentation, radiological features, operative procedure and outcome. In our two cases, radiological features and surgical approaches were different from one another.

Keywords

Dowling-Orlando technique, Echinococcus, Brain Hydatid cyst

Role of Cystoscopy in Pediatric Surgery Diagnosis and Treatment: Experience by A Single Surgeon at French Medical Institute, Kabul- Afghanistan.

Mohammad Tareq Rahimi MD, MS, Reshadullah Jurat MD.

Objective

To evaluate the role of Cystoscopy in Pediatric Surgery Diagnosis and treatment.

Methods

It is a retrospective case series of diagnostic and therapeutic cystoscopies of 54 children with different pathologies such as bladder stone, pelvo-ureteric junction stenosis, post urethral valve, vesico-ureteric reflux, urethrocele, urethral stricture, diagnostic cystoscopy, JJ stent apply and removal, with timeline of May 2017 till May 2019.

Results

From these 54 cases, 47 were therapeutic and 7 diagnostic ranging from 1 week to 14 years in age. Only one of them ended with failure in a case of retrograde JJ stenting for pelvo-ureteric junction stenosis. Mean operative time was 15 minutes and 80% of cases were done as day surgery. In two cases of vesico-ureteric reflux, one unilateral and other bilateral case, we used Deflux bulging agent in which with 3 months follow up we observed complete resolution of the problem. In post urethral valve, results were better in younger children than older ones. Patients chose for cystoscopy after findings of ultra-sonographies or x-ray imaging (i.e. IVP, MCU or both) and cystoscopy performed in them. Mean procedure charges were much less than open approaches.

Conclusion

Cystoscopy is generally a safe procedure and can be used for diagnostic and therapeutic purposes. Diagnostic procedures can help surgeons with their surgical approaches and checking post-operative complications in urethra and bladder. Cystoscopy is a cost-effective procedure for diagnosis and treatment of urethral, bladder and ureter pathologies. In Diagnostic Cystoscopy, we can get information about any stricture, masses, diverticula, orifice conditions and inflammatory processes in urethra, bladder and ureter. Above all, cystoscopy can be helpful in cases of unknown bleedings: pain, blockage and difficulty with urine flow, evaluation of genitourinary fistula, chronic pelvic pains, recurrent urinary tract infections, retrograde pyelography, and bladder neck evaluation and procedures.

Proportion of Steroid Sensitive Nephrotic Syndrome and Risk Factors Associated with Relapse in Children at FMIC, Kabul, Afghanistan

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Introduction

The long-term prognosis of children with steroid sensitive nephrotic syndrome (SSND) is excellent. However, half of these children will develop frequent relapsing (FR) or steroid dependent (SD) disease which is a major challenge for physicians to manage. As many patients with steroid dependent nephrotic syndrome experiencing complications of immunosuppression and steroid toxicity leading to increased morbidity and mortality. Thus, it is very important to find out children

who are prone to develop frequent relapsing (FR) nephrotic syndrome early in the course of the illness.

Objective

The aim of our study was to determine the frequency of steroid sensitive nephrotic syndrome (SSNS) and to identify the risk factors associated with relapse in children.

Materials

A cross-sectional analytical study was conducted at French Medical Institute for Mothers and Children (FMIC), Kabul, Afghanistan from January 2018 to January 2019. A total of 120 children aged 1-10 years with the diagnosis of SSNS and a minimum follow up of 6 months were included in the study. Data obtained retrospectively from reviewing medical record files of patients' who were admitted to pediatric department of FMIC from 2010 to 2018. Data was analyzed, using SPSS version 25. Chi-squared test and t-Test were used as statistical tests and p value < 0.05 was taken as significant. Eight factors were studied as possible risk factors for relapse.

Results

Out of 120 children, 112 (93.3%) suffered from SSNS, 53 (44.2%) were FR and 67 (55.8%) were IFR. The mean age of presentation was 4.3 ± 2.5 years. There were 65 (54.2%) males and 55 (45.8%) females with a male to female ratio of 1.2:1. The mean time taken to achieve remission during the first episode was 1.4 ± 0.8 weeks and the mean time interval between remission and first relapse was 7.3 ± 2.8 months. Risk factors significantly associated with FR were: young age (<6 years) at initial presentation ($p=0.0001$), female gender ($p=0.009$), more than two weeks (>14 days) time taken to achieve remission during the first episode ($p=0.0001$), relapse within the first 6 months of remission ($p=0.0001$), interruption of treatment ($p=0.002$) and associated infections ($p=0.014$). In our study, asthma attack and duration of corticosteroid therapy did not influence the pattern of relapse.

Conclusion

Young age at the time of initial presentation, female gender, >14 days' time to achieve remission during the first episode, relapse within the first 6 months of remission, associated infections and interruption of treatment were the risk factors significantly associated with FR nephrotic syndrome.

Keywords

Nephrotic syndrome, relapse, Steroid sensitive, children, risk factors.

Developmental Dysplasia of the Hip (DDH) Covers A Group of Developmental Disorders of the Hip Characterized by Hip Subluxation, Dysplasia or Dislocation

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Introduction

Developmental dysplasia of the hip (DDH) covers a group of developmental disorders of the hip characterized by hip subluxation, dysplasia or dislocation. If a child with DDH is left untreated, the conservative methods of treatment will fail and surgery will be the only treatment option. Different methods of surgical treatments are proposed, each having age-related indication. Triple innominate osteotomy is one of the acetabular repositioning osteotomies, which is suitable for older children.

The aim of this study is to determine the clinical and radiological outcomes of the Triple innominate osteotomy among children with DDH at FMIC, Afghanistan.

Methods

A retrospective chart review of 203 participants aged 5 to 15 years underwent Triple innominate osteotomy was done. Participants were divided into two groups with respect to their age; 5 to 9 years and 10 to 15 years. Chi-square test and T-test were run to determine an association between two categorical variables and to compute mean difference between categorical and continuous variables respectively. All the ethical principles were followed throughout the study process.

Results

Mean pre-operative acetabular index was $39^\circ (\pm 6.6)$, which decreased to $14.4^\circ (\pm 3.7)$ post-operatively ($P < .001$). According to Tönnis grading, more than 95% of participants were in Grade IV, but post-operatively more than 90% improved to Grade I ($P < .001$). Excellent clinical outcomes based on McKay's criteria were seen in 155 (75%) of participants and good in 12 (6%). Excellent radiological outcomes (Grade I) based on the Severin's classification were seen in 90% (184) of participants. There was no significant difference in clinical or radiological outcomes between the two age groups ($P < .05$).

Conclusion

Significant improvement was seen in acetabular coverage of the femoral head along with excellent clinical and radiological outcomes in both age groups (5 to 9 years and 10 to 15 years). Results suggest that Triple Innominate Osteotomy may be an effective and safe procedure for walking-aged children with DDH and may provide satisfactory clinical and radiological outcomes.

Keywords

Clinical, Radiological, Outcomes, DDH, Triple, Osteotomy

Esophageal Atresia and Tracheoesophageal Fistula Tubeless Repair; New Highlight in Previews Procedure at French Medical Institute for Mothers and Children, Kabul, Afghanistan

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Introduction

Congenital interruption in the formation of the esophagus lumen is called esophageal atresia. In 85% to 90% of cases it's accompanied by an abnormal connection with trachea which is called tracheoesophageal fistula.

Objective:

To find out whether the presence of tubes can affect the outcome of surgery or not after repair of esophageal atresia and TEF.

Methods

A descriptive comparative study design was conducted; 72 patients underwent repair at our center, 11 of these patients underwent tubeless repair. Compression based on 4 variables was conducted which were: hospital stay, early complication, prognosis and late complications.

Results

The first group of 61 patients, mean age was 6.56-day, mean weight was 2.53 kg range, 54.10% of the patients were male, 37.70% had cardiac anomaly, in 4.95% of the patients we found other associated anomaly, 75.41% were operated extra plural. In 42.62% of the patients early complications developed. Of these patients 29.51% died, the mean hospital stay was 15.43 days' range, in 24.59% of the patients late complications developed (esophageal stenosis). In the second group, 11 patients who underwent repair without the use of tubes, the mean age was 4.09 days, weight mean was 2.66 kg, 63.64% were male, with no anomaly. Early complications developed in 27.27% of the patients. Mean hospital stay was 11 days. Of these patients, 81.82% were discharged without any late complications. After running the univariate analysis, Fisher's exact test showed the association of type of surgery to hospital stays as 0.02 (highly significant) and for late complications as 0.06 (marginally significant). All other stayed insignificant including early complications with P-value of 0.27, and death compression as 0.35.

Conclusion

By attempting to avoid using tubes in the repair of esophageal atresia and TEF, a patient's hospital stay can be shortened and It can also prevent late complications such as esophageal stenosis.

Outcome of Pauwels' Y-Shaped Intertrochanteric Osteotomy for Coxa Vera Among Children at French Medical Institute for Mothers and Children (FMIC), Kabul, Afghanistan

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Introduction

Coxa vara is an abnormality characterized by a defect in the femoral neck with an abnormal decrease in the femoral neck-shaft angle, shortening of the femoral neck, relative overgrowth of the greater trochanter. Affected patients almost invariably present after walking age, and sometimes as late as adolescence. Developmental coxa vara is rare; its incidence was estimated to be 1 in 25,000 live births. There is no racial predilection and boys and girls are equally affected.

Objective

The aim of this study was to determine the outcomes of Pauwels' Y-shaped intertrochanteric osteotomy for Coxa Vara among children at FMIC, Kabul, Afghanistan.

Methods

A retrospective case series study design was employed. The data was collected from the available records of 20 participants who had undergone Pauwels' Y-shaped intertrochanteric osteotomy for Coxa Vara at FMIC hospital in the period of 2006 to 2018, osteotomy were fixed with tension band wire and pins, external immobilization done with Hip Spica cast for 1.5 months.

Result

Majority (13(65%)) of the participants were female and 7(35%) were male. 9(45%) of the participants had bilateral coxa vara, 8(40 %) had left side coxa vara and 3 (15%) had right side coxa vara. Mean

Age of participant was 6.7 years old (range, 3-13years). Among these participants 11(55%) had congenital coxa vara, 6 participants had coxa vara which was developed post-surgical treatment of Development Dysplasia of the Hip(DDH) and 3(15%) of them had traumatic coxa vara. The average post operation follow-up was 15 months (range,8-60 months).

Conclusion

Pauwels' Y-shaped intertrochanteric osteotomy with tension band wiring and pins fixation is one of the best and effective treatment method for coxa vara. We suggest this method of treatment for coxa vara in children.

Association Between WBC Count and AMI in-Hospital Mortality in a Tertiary Care Hospital, Kabul, Afghanistan

Amanullah Enayati, MD, Cardiologist, Sher Ahmad Akbari, FCPS, Interventional cardiologist

Introduction

The Elevated WBC count has been accepted as part of healing response following myocardial infarction as well as predictor of adverse cardiovascular events. The objective of this study was to determine the association of WBC count with acute myocardial infarction in-hospital mortality at FMIC, Kabul, Afghanistan.

Methods

A Retrospective cohort study design was conducted. Records of 110 patients were reviewed. The data was collected from available records during Jan-December 2017.

Result

There was a significant association between age (Mean±SD; 53±9.79 years in exposed and 58±11.79 years in unexposed) and WBC count as evident by p value of 0.008 (RR 1.109, CI 95%). Also there was significant association between level of WBC count and hospital stay (Mean±SD; 1.7±0.97 days), as evident P value of 0.003 (RR 1.84, CI 95%). An important correlation was present between family history and WBC count (20.9% in exposed and 7.27% in unexposed group) as evident p value of 0.001. The patient with elevated WBC or exposed group compared to unexposed group had more (8.1% versus 0.9%) low systolic blood pressure (p value=0.008). Significant association (10% death versus 1.8%) was found in patients of high WBC count with in hospital mortality (p value =0.008, RR 6.6, CI 95%).

Conclusion

The research study revealed that there is a strong association between elevated WBC count in AMI and in-hospital mortality, length of stay, systolic blood pressure, age and family history of coronary artery disease. AMI patients with high WBC levels has higher rate of in-hospital mortality in comparison to AMI patients with normal WBC.

Keywords

Acute Myocardial infarction, White Blood Cell Count, Mortality.

Pattern and Clinical Outcome of Hirschsprung's Disease Patients Operated at FMIC in Year 2018, A Case Series

Reshadullah Jurat MD, Mohammad Tareq Rahimi MD, MS

Introduction

To characterize the demographics of Hirschsprung's disease patients and to find out the outcome of surgeries done for these patients at FMIC.

Methods

we conducted a retrospective case series in paediatric surgery department of our institution and included all patients diagnosed with Hirschsprung's disease with primary intervention at FMIC in 2018. Data was collected from patients' medical record files with a developed check list and analysed in SPSS.

Results

In 2018, 17 patients were operated, from which 82.4% (14) were male and 17.6% (3) were female. Only 5.9 % of them (1) had a positive family history of the disease. In nearly half of them (52.9%) consanguinity was positive. 58.8% of patients (10) were septic on arrival and 52.9% (9) were hypovolemic on arrival.

On arrival as clinical presentation 88.2% of patients (15) had abdominal distension, 76.5% (13) had difficult bowel movement, 58.8% (10) had vomiting (23.5% (4) bilious and 35.3% (6) non-bilious) and one (5.9%) had enterocolitis. In three of the patients, history of delayed meconium passage was unknown, six (35.3%) had passed meconium after 48 hours, 7 (41.2%) within 24-48 hours and one (5.9%) within first 24 hours. The primary diagnostic tool in 15 (88.2%) was contrast enema and in 2 (11.8%) rectal biopsy, but in 2 (11.8%) the result of contrast enema was different than rectal biopsy (both were at neonatal age). In majority of the cases, the disease was short segmented (15 patients 88.2%). The primary intervention was Trans anal pull through in nine patients (52.9%) and primary stoma in five (29.4%), 11 patients (64.7%) had some types of post-operative complications; in 5 (29.4%) hirschsprung associated enterocolitis, in 4 (23.5%) anal stenosis and in 2 (11.8%) peri-stoma or peri-anal skin breakdown was observed. Two of the patients (11.8%) developed surgical site infection 11.8% (2) and 2 of them (11.8%) wound dehiscence.

Conclusion

Hirschsprung disease is a developmental disorder characterized by the absence of ganglia in the distal colon resulting in a functional obstruction. Although most are diagnosed in neonatal age, the result of contrast enema is not trustworthy in this age. More often the disease occurs in males and the most common type is short segment. Most of the cases had a degree of mild to moderate complications post operatively.

Technology, Research and Innovation

Session 5

Effect of Active Follow-Up on Child TB Patients Via Phone on Tuberculosis Treatment Outcomes in Kabul City – Document Review

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Introduction

In 2010, Kabul population was 4,227,000, with 45% children under the age of 15. The management of tuberculosis (TB) among children in Kabul was very poor due to only two specialized hospitals had the capacity to provide TB services for children. Concurrently, treatment follow-up was poor and disorganized, resulting in a treatment success rate (TSR) of only 23% for children. The aim of this study was to investigate an active follow-up system using phones and its impact on the treatment success rate among child TB patients in Kabul city.

Interventions

In early 2015, the Challenge TB (CTB) project introduced a phone tracking system to monitor child TB patients who transferred out of specialized children's hospitals by health care staff to other facilities for treatment follow up. CTB provided health facility staff with mobile phones and pre-paid monthly cards to enable them to contact individual patients under treatment and their health facilities. The study team collected TSR data via phone from patients and health facilities, along with data from the National TB Program (NTP) TB reporting forms.

Results

In 2010 at the baseline data collection, 206 child patients registered for TB treatment. Of the total children registered for treatment, 48 (23%) were successfully treated, 19 (9%) died, 19 (9%) were lost to follow-up, 6 (3%) had treatment failure, and 114 (55%) were not evaluated. In 2017, baseline data was collected which found 1,715 child TB cases were put into treatment. Of those 1,715 children, 1,428 (83%) were successfully treated, 32 (2%) died, 98 (6%) were lost to follow-up, 39 (2%) had treatment failure, and 118 (7%) were not evaluated.

Conclusion

The study revealed that using phone intervention to actively follow-up TB child patients helped to significantly improve the TSR of children under the age 15 in Kabul.

In Vitro Transplantation: Novel Method in Infertility Treatment by Spermatogonial Stem Cell

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Introduction

Sperm production is one of the most complex biological processes in the body. In vitro production of sperm is one of the most important goals of researches in the field of male infertility treatment, which is very important in male cancer patients treated with gonadotoxic methods and drugs. In this study, we examined the progression of spermatogenesis after transplantation of spermatogonial stem cells under conditions of testicular tissue culture.

Results

Testicular tissue samples from azoospermic patients were obtained and then these were freeze-thawed. Spermatogonial stem cells were isolated by two enzymatic digestion steps and the identification of these cells was confirmed by detecting the PLZF protein in the colonies derived from them. These cells, after being labeled with Dil, were transplanted in azoospermia adult mice model. After 8 weeks of host testis culture, histomorphometric, immunohistochemical and molecular studies were performed. The results of histomorphometric studies showed that the mean number of spermatogonial cells, spermatocytes and spermatids in the experimental group was significantly more than the control group ($P < 0.05$) and most of the cells responded positively to the detection of Dil. Immunohistochemical studies in host testes fragments in the experimental group express the PLZF, SCP3 and ACRBP proteins in spermatogonial cells, spermatocyte and spermatozoa, respectively, which confirmed the human nature of these cells. Also, in molecular studies of PLZF, Tekt1 and TP1, the results indicated that the genes were positive in the test group, while not in the control group.

Conclusion

These results suggest that the conditions of the 3-Dimensional testicular tissue culture after long-term preserved spermatogonial stem cell transplantation can support the progress of spermatogenesis to produce haploid cells.

Keywords

Stem Cells, Human, Transplantation, Azoospermia, Tissue Culture.

Going Digital: Added Value of Electronic Data Collection in The 2018 Afghanistan Health Survey

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Introduction

As part of the 2018 Afghanistan Health Survey, we conducted an operational study in two provinces and compared the effectiveness of digital and paper data collection.

Methods

In Panjsher and Parwan provinces, household survey data were collected using paper questionnaires in 15 clusters, and using Open Data Kit (ODK) software on electronic tablets in the remaining 15 clusters. Added value was evaluated from three perspectives: efficient implementation; data quality;

and acceptability. Efficiency was measured through financial expenditures, and time stamped data. Data quality was measured by examining completeness. Acceptability was studied by conducting focus group discussions with survey staff.

Results

Training, printing, material procurement, wages and transportation costs were 7.2% lower in ODK clusters compared to paper clusters, and would have been 13.5% lower without the first-time investment of tablets and power banks. Enumerators spent significantly less time administering surveys in ODK cluster households (total survey time: 248 minutes) compared to paper (289 minutes), for an average savings of 40 minutes per household (95% CI: 25 – 55).

Among 49 essential variables (meaning responses were required from all respondents), small differences were observed between paper and digitally collected data. Among the final cleaned dataset's essential variables 2.2% of all data were missing in ODK surveys (1,216/ 56,073 data points), compared to 3.2% in paper surveys (1,953/ 60,675 data points). In pre-cleaned datasets, 3.9% of essential variable data points were missing in ODK surveys (2,151/ 55,092 data points) compared to 3.2% in paper surveys (1,924/ 60,113 data points).

Enumerators preferred digital data collection over paper-based data collection due to substantial time savings, user-friendliness, improved data security, and less conspicuity when traveling. Community and household respondent skepticism was resolved by enumerator reassurance. Enumerators shared that in the future, they prefer to collect data digitally when possible.

Conclusion

The added value of digital data collection was clear from this study although only conducted in relatively secure areas. Compared to paper, digital data collection resulted in improved efficiency of data collection and management, lower financial expenditure, and good acceptability while preserving data quality. Digital data collection in insecure areas may pose other challenges.

Investigation of A Fatal Botulism Outbreak in Baghlan Province, Afghanistan, September, 2017

Dr M. Tawfiqulhakim Nazri, Dr M. Salim Saha, Dr M. Hafiz Rasooly, Dr M. Sharif Obaidi

Introduction

Clostridium botulinum is producing dangerous toxins and are responsible for the majority of Botulism-related fatalities. It blocks the nerve functions and can lead to respiratory and muscular paralysis. Foodborne botulism, caused by consumption of improperly processed food. Homemade canned, preserved or fermented foodstuffs are a common source of foodborne botulism. In Afghanistan, it is the first recorded Botulism outbreak in surveillance history; therefore, an investigation was done to identify the source of illness and recommend control measures.

Methods

A case was defined as anyone in the Silo village who ate dinner on 06 September 2017 and who subsequently developed >one symptom/sign: dizziness, double vision, dropped eye lid, difficulty in swallowing, difficulty in breathing and spitting the saliva. Samples of stool, blood, throat swab and consumed buttermilk, the putative agent were sent to reference laboratory with different hypothesis (Diphtheria, Myasthenia gravis and Botulism).

Results

Using standard line list, we identified 5 cases among one family who ate dinner in their home. The only food common to all was homemade canned buttermilk. All individuals who ate the buttermilk became ill. There were two cases in males (aged 18 & 22 years) and three cases in females (aged 14-22 years). All cases (100%) were hospitalized, of which three died CFR= 60% (2 Female aged 14 & 22, one Male 22 Years). 2 other cases who received anti-toxin of clostridium botulinum, slightly recovered and discharged from hospital after two weeks. Lab isolated clostridium botulinum and buttermilk were identified as a poisonous food.

Conclusion

Clostridium botulinum which is producing toxins caused this outbreak of serious illness with deaths. Due to its importance in Afghanistan, we are reviewing approaches to ascertain how commonly similar outbreaks may occur in Afghanistan and how to improve the capability of our population to safely eat their foods.

Keywords:

Outbreak; Food poisoning; Afghanistan; Botulism; 2017

Factors Associated with Abnormal CT Findings in Mild Head Trauma Patients in A Tertiary Hospital, Kabul, Afghanistan

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Introduction

Head trauma patients from emergency departments (EDs) are routinely referred to undergo brain computed tomography (CT) scan for detection of intracranial traumatic related abnormalities. A large number of these patients have mild head injury with Glasgow Coma Scale (GCS) of 13-15. Usually the CT results of such patients have shown to be normal. Due to high cost of CT scan examination and risk of radiation exposure many debates exist in the literature in order to decline this large number of unnecessary CT scans in this population. This has been researched by finding the association between clinical features and CT findings of mild head trauma patients.

Method

An analytical cross sectional study was conducted on mild head injury patients with recent history of trauma (48 hours) referred to the radiology department of FMIC from January to December 2018. The clinical history and observation of patients were directly filled in the structured questionnaires.

Results

A total number of 180 mild head trauma patients were included in this study from which 135 were men and 45 were women with median age of 7 years old (The age range was from 0.2 to 80 years old). Skull fracture and intracranial CT abnormalities were noted in 26.1% of the patients. Most of them had GCS of 13 (64.7%) followed by 14 (19.6%). From different observed clinical findings, patients with depressed skull fracture and moderate to severe degree of headache represented a higher number of abnormal CT findings (p-values of 0.001 and 0.04 respectively).

Conclusion

Patients with moderate and severe headache, depressed skull fracture and signs of skull base fracture had more abnormal CT findings, hence ordering CT examination is highly recommended in such patients following mild head trauma.

Humanitarian and Primary Healthcare Needs of Internally Displaced Population in Afghanistan

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1. World Health Organization (WHO) Afghanistan

Introduction

Afghanistan is one of the countries with longest protracted complex emergencies exposed to prolonged conflict, frequent natural disasters and mass population movements. The conflicts have direct impact on the physical and mental health status of affected populations as well compromise the functional capacity of health care services and humanitarian interventions and their access. In 2018, drought has affected more than two-thirds of Afghanistan that unleashed a host of problems on already impoverished communities, reducing incomes by half, exposing people to additional health risks and causing households to engage in negative coping mechanisms.

Methods

The data for this paper is collected using the routine health clusters reporting system from the partners in addition to intensive literature review.

Results

A total of 789,319 people returned back to Afghanistan from Iran and Pakistan in 2018. Moreover, a total of 332,900 people have been verified as being displaced by conflict in 2018, according to OCHA's Displacement Tracking System (DTS). Population displaced by conflict are particularly vulnerable and need for trauma care. As a result, the demand for trauma care has increased as a result of continued conflict, particularly mass casualty incidents, with a 24 per cent jump in the number of trauma-related consultations in 2018. Recent estimates suggest that more than 7 million people have no or limited access to essential health services due to insufficient coverage by the public health sector and direct interruption due to conflict and insecurity.

Conclusion

Women, children, people with disabilities, rural communities and those affected by natural or manmade disasters have equal right to health services as anyone else since this is one of working principles of MoPH. The humanitarian health response activities need to focus on the quality of services provided to displaced population to reduce their vulnerability to health risks.

Keywords

Humanitarian, Trauma, Primary Healthcare, Refugees, Returnees

Descriptive Epidemiology of Measles Outbreaks in Afghanistan: National Surveillance Data, 2017- First Quarter of 2019

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Introduction

In Afghanistan, high numbers of measles outbreaks are reported since 2012. The main reason could be low immunization; however, these outbreaks are not described in a well-organized article. This study is designed to provide descriptive epidemiology of measles outbreaks by person, place, and time and to identify the case fatality rate (CFR) of measles in Afghanistan.

Methods

This descriptive study is based on analysis of dataset of outbreaks managed by National Diseases Surveillance and Response (NDSR) collecting data and detecting outbreaks regularly including measles. We used line-lists from January 2017 to first quarter of 2019 to describe important descriptive indicators. Outbreaks are detected and investigated via health facilities or community report alerts to provincial surveillance officers, the provincial response teams conduct investigation, provide initial response, and collect specimens from the suspected cases of measles which are tested at Central Public Health Laboratory in Kabul for confirmed cases.

Results

Overall, 176 and 215 measles outbreaks were reported in 2017 and 2018 which included 3126 and 2605 cases respectively. So far, 16 outbreaks are reported during first quarter of 2019 included 133 cases. Of the reported cases, 54% were males in 2017, 52% male in 2018 and 47% males during first quarter of 2019. From 2017 to first quarter of 2019, most of the outbreaks occurred between June and September. Among total cases, percentage of lab confirmed cases were found 9% in 2017, 13% in 2018 and 18% in first quarter of 2019. Among reported outbreaks cases in 2017, 2018 and first quarter of 2019, the case fatality rate was 26, 7 and 15 per 1000 cases, respectively.

Conclusion

The results of this study showed that despite having routine immunization program, the number of measles outbreak increased in 2018 compared to 2017. Focusing on improving immunization coverage is direly needed.

Keywords

Measles, Afghanistan, Surveillance, CFR, NDSR

Review of Tetanus Toxoid (TT) Coverage in Sarepol Province-Afghanistan-2018

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Introduction

Tetanus is a vaccine preventable disease present in elimination list of WHO. Its case fatality ranges between 10-20%. The coverage and factors associated for Tetanus Toxoid (TT) is not clear in Sarepol province. This study aims to identify the immunization of TT coverage and describe factors associated in Sarepol province, in 2018.

Methods

It is a retrospective descriptive study of secondary data existed in EPIMIS database at provincial level. EPIMIS is part of HMIS which is a system based database focusing on qualitative and quantitative indicators in which routine health information is collected, processed, analyzed, interpreted, disseminated, and used to provide better health services and to ultimately improve the health of population. After retrieving data, we performed analysis to identify the coverage and illustrate associated factors at provincial, and district health facilities levels. We accessed data from 43 health facilities which were functional in Sarepol province in 2018. We used Microsoft Excel 2013 for analysis and calculated proportions, percentages, means and other descriptive measures for TT1-TT5 coverage.

Results

The overall proportion of TT vaccine coverage in Sarepol province was TT1 30%, TT2 25%, TT3 14%, TT4 7% and TT5 4% which seems low in comparison to national coverage (TT-51.8%). Availability of female vaccinators in health facilities positively affected the coverage (30% versus 28%). TT coverage in urban area was higher compared to rural areas (30% versus 20%). Coverage affected by seasonal situation; in the first 6 months of year coverage was better than the second 6 months of year (27% versus 24%). Also, TT2 coverage in pregnant women was higher than TT2 in non-pregnant women at provincial level (44% versus 21%). TT coverage of fix areas was better than outreach/mobile areas (6775 persons versus 5881 persons).

Conclusion

There is low coverage of TT vaccination in Sarepol province while WHO is focusing on its elimination. Provincial Public Health sector should focus on factors identified in our study to improve the coverage and it should also improve the health of mother and child.

Key words

Tetanus Toxoid, TT, Vaccine, Afghanistan, Sarepol

Quality, Nursing and Allied Health

Session 6

Flipped Versus Traditional Instruction and Performance Outcome in a Baccalaureate Nursing Pharmacology Course

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Introduction

The objective of the study was to determine effect of flipped classroom on Bachelor of Science in Nursing (BScN) students' pharmacology assessment scores, in a school of nursing in Karachi, Pakistan.

Methods

A retrospective chart review was performed. Pharmacology Continuous Assessment Test scores of Bachelor of Science in Nursing (BScN) cohort of 2020 (who were offered the course via flipped classroom pedagogy) was compared with BScN cohort of 2019 (who were offered the course using traditional teaching pedagogy), using Mann U Whitney test. Moreover, student evaluation forms and their verbal feedback were analyzed.

Results

Median CAT score of cohort of 2019 was 35 (Interquartile range (IQR) 32-38); whereas, median CAT score of cohort of 2020 was 38 (IQR 35-41). The difference in the score was statistically significant (P-value < 0.000). Student evaluation forms and verbal feedback showed that they liked the strategy as they were able to study for pre-class at their convenient time and pace. They also appreciated the pre-class material and in-class interactive sessions which clarified their concepts. However, it was noted that since the pedagogy was newly introduced to them in Pharmacology course, some students were not accustomed to the new pedagogy and wanted teachers to use traditional teaching pedagogy for teaching a difficult course.

Conclusion

The study has offered an insight into the effect of a new teaching learning pedagogy i.e. flipped classroom, which has shown to improve Pharmacology knowledge test scores. Recommendations were proposed by students to introduce this pedagogy from their first academic year and in all nursing and non-nursing courses.

Home Health Services-Improving Patient's Safety and Quality Care at Doorstep

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1. Nurse Navigator, AKUH (Home Health Services)
2. Nurse Manager, AKUH (Outreach services)

Introduction

Home health services have a significant impact on patient safety and health outcomes. Evidence based research suggests that strengthening the nursing workforce can improve access to health services, shorten the length of stay in hospital for patients, improve clinical outcomes, prevent nosocomial infection and decrease inpatient morbidities.

The home health services have experienced nurses with expert clinical knowledge and in-depth understanding of the health system, whose focus is to care patients with complex health care needs

at home setup. These nurses have extensive clinical skills required to identify and monitor the health care requirements of critical patients, identify the appropriate action required and facilitate timely access to holistic care.

Objective

To determine the impact of home health services in improving patient care and safety at home setting.

Methods

Administration of nurse navigator introduced to assure proper triage and comprehensive assessment of patients during clinical round. Assigning home health care nurses at least a shift prior in hospital to have proper hands-off for continuity of care based on the patient disease process and clinical assessment. Additionally, prior need assessment leads to timely arrangement of necessary equipment. The service based brochure and card formulated for patients and caregivers to have easy and reliable access to home health services in discounted packages. A helpline service and call center model introduced for the ease of customers. This service is 24/7 active and respondent to every call. Moreover, patient's availing palliative services have quality assurance round by clinical nurse instructor to ensure patient care plan and patient satisfaction at home. In addition, Intra disciplinary team meetings are arranged biweekly to discuss in-depth patients care plan.

Results

All innovative interventions carried out by home health services aimed to improve patient care and safety at home and increase overall patient satisfaction. These integrated and multidisciplinary approaches to health care ensure that patients receive the most appropriate service when and where they need it.

Conclusion

Home health services endorses individualized patient care needs at home setting and improves care outcomes by building a liaison bridge between hospital and community.

Prevalence and Associated Risk Factors of Difficult Intubation

Dr Mohammad Sharif Oria, Dr Ismail Ibrahimkhil, Dr Julia Weinkauff, Prof Carolyn Porta, Dr Sultan Ahmad Halimi

Introduction

Airway management has been a remarkable contest for anesthesiologists. Laryngoscopy and tracheal intubation are one of the recognized life threatening pillars in airway management during induction of general anesthesia while attempting to insert the endotracheal tube with the aid of laryngoscope. Unanticipated difficult laryngoscopic intubation places patients at increased risk of complications.

Aim: This study aimed to determine the prevalence of difficult laryngoscopic intubation and predictive value among adult patients scheduled for elective surgery under general anesthesia in Aliabad Teaching Hospital.

Methods

A cross sectional study was conducted among 350 patients based on the consecutive sampling. Independent variables were recorded by observing preoperatively each airway assessment test for additional consideration. Initial data was entered to excel and then exported to SPSS version 22 for further analysis according to the type of data.

Results

A total of 341 patients (193 male and 148 female) participated in our study. The mean age of participants was 36.98 ± 15.048 years, from which 54.5% was Tajik. In socio-demographic characteristics Hazara people, female patients, the elderly and systemic patients had more difficulty in intubation than other patients including male patients, patients less than 40 and ASA I patients. Predictive factors which were likewise known associated with difficulty in intubation for all difficult intubation and on bivariate analysis. The multiple logistic regression analysis of associated factors determined that higher age, ability to prognath and mouth opening were independent predictors for difficulty in intubation.

Conclusion

In this study the overall prevalence for difficult intubation were 26.7% and 3.8% for difficult laryngoscopy. Amongst all difficult intubation, 24.3% of the patients were had slight difficulty, 2.1% moderate to major difficulty in intubation, and 1 patient detected as failed intubation.

Keywords

Difficult Intubation, Prevalence, Laryngoscopy, Intubation Difficulty Scale.

Physicians' and Nurses' Perspectives on the Importance of Advance Directives in Tertiary Care Hospitals

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1. Aga Khan University, Karachi

Objective

This study aimed to explore and identify the nurses' and physicians' views about Advance Directives and identify their perspectives on its importance, in the context of Pakistan.

Methods

Using a purposive sample, six physicians and seven nurses from two tertiary care hospitals in Karachi participated in the study. Data was collected using semi structured interviews that were transcribed verbatim. The interviews were coded and categorized manually. Analysis of the data drew four categories: roles of physicians and nurses in the End of Life care, challenges they faced while taking End of Life care decisions; their perspectives about Advance Directives, and the scope of acceptability of Advance Directives in the context of a Pakistani society.

Findings

This study revealed that patients' families and physicians usually take decisions for patients' End of Life care. Although majority of participants acknowledged the usefulness of Advance Directives, they explicated several issues that may be encountered in implementing Advance Directives. The issues

included non-disclosure of diagnosis to the patient in the Pakistani culture, the tedious legalization process involved, and the potential problem of forged documents.

Conclusion

Participants recommended establishment of Palliative Care services before the execution of Advance Directives. This study indicated viability of Advance Directives; however, a wider exploration would be required in terms of study population.

Conclusion

Reforms to support this concept would be required in systems, structure, legal policy, and training of Health care professionals. Besides these transformations, promotion of public education about the advantages of Advance Directives could enhance their acceptability among the general population.

Study on Socio-Economic and Socio-Demographic Features of Esophageal Cancer in French Medical Institute for Mothers and Children (FMIC), Kabul Afghanistan.

Ramin Saadaat MD, Jamshid Jalal MD PhD, Nooria Atta MD MSc

Introduction

Esophageal Cancer (EC) is one of the common cancers in terms of incidence and mortality worldwide. In Afghanistan, EC is the 4th common cancer as estimated by GLOBOCAN 2018. Distribution of EC prominently varies geographically more than 20 folds in different regions of the world. Socio-economic factors also have an effect on EC incidence in addition to other risk factors.

Objective

To evaluate the socio-demographic, socio-economic status, histologic subtypes and gender distribution for EC among patients diagnosed in FMIC.

Methods

A case series study has been carried out for all EC diagnosed cases which have been diagnosed in time duration of December 2018 up to June 2019 by histopathology examination in pathology department of FMIC. The data information was collected from patients by asking the questions during visiting the hospital or through phone call. All analyses were performed using SPSS version 25.

Results:

A total of 113 EC diagnosed cases are analyzed which includes 83 (73.5%) of squamous cell carcinoma and 30 (26.5%) adenocarcinoma. The mean age of the patients is 58y \pm 9.6 years (35-85 years). Predominantly the cases are in the male group (69%). The majority (94.7%) of the patients are living in rural areas. More than 80% are illiterate with only 1.8% completed higher education. Majority (90%) of the study population are belonging to labor class. Most (38%) cases are from center zone of Afghanistan, followed by North-East (20%) and North (14%). According the ethnicity group distribution most are Pashtun (31.9%) followed by Tajiks (28.8%), Hazara (22%) and Uzbek-Turkmen (15.5%). According to socio-economy status assessment 94 (93.2%) are from low-income household, (16.2%) from middle-income and none from high-income family.

Conclusion

Current study findings show that most patients were male, uneducated, belonging to low-income groups, living in rural areas and majority of the patients were from center and north zone of the country. These findings suggest that larger study should be done to see the possible associated risk factors of EC, especially in the groups of individuals listed above.

Keywords:

Cancer, Esophagus, Geographic, Socioeconomic.

Barriers Associated with Evidence Based Practice among Nurses in Low and Middle Income Countries: A Systematic Review

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3. Tehran University of Medical Sciences, International Campus, Tehran, Iran
4. School of Nursing, Clarke International University, Kampala, Uganda

Introduction

Evidence based practice (EBP) is both a goal and an approach that requires a combination of clinical experience with the most credible recent research evidence when making decisions in healthcare practice. The approach has been widely embraced; however, an evidence to practice gap still exists.

Objective

To assess barriers to EBP among nurses in low and middle income countries.

Methods

This review conforms to the PRISMA statement. Databases PubMed, Scopus, EMBASE, and Web of Science/Knowledge were searched using a combination of keywords that included "barriers," "evidence based practice," and "nurses." The references of the selected articles were also hand searched to obtain additional relevant articles. Studies published in peer reviewed journals in English between 2000 and 2018 were included in the review.

Results

Sixteen articles were included in the analysis, with a total number of 8,409 participants. Both qualitative and quantitative studies were included in the review. Three main themes emerged from eight categories found. The three main themes were institutional related barriers, interdisciplinary barriers, and nurse related barriers. The theme of institutional related barriers emerged from four categories, which included scant resources, limited access to information, inadequate staffing, and lack of institutional support. The theme of interdisciplinary barriers emerged from subcategories that included lack of communication between academic and clinical practice environments, inconsistency between education and practice in the nursing discipline, lack of teamwork, and the public negative image about the nursing profession. Finally, the theme of nurse related barriers emerged from categories including perceived limitations in the scope of nurses' practice, time, knowledge of EBP, and individual related barriers.

Conclusion

These findings may guide the design of future interventions aimed at fostering EBP. Implementing EBP in practice should be systematic and requires institutional will and interdisciplinary and individual commitment. It should be a collective goal and a win win situation for nurses, clinicians, and healthcare organizations.

Outcomes of Bupivacaine Plain Versus Bupivacaine-Clonidine Mixture in Caudal Epidural Block in Children Undergoing Sub-Umbilical Surgery at French Medical Institute for Mothers and Children

Dawood Azeemy MD

Introduction

Caudal block through epidural approach with bupivacaine is a very famous method in providing intra and postoperative analgesia for children undergoing sub-umbilical surgeries. There are many adjuvants combined with bupivacaine to prolong the analgesia in this block. In this study we assessed the effects of clonidine with bupivacaine 0.25% on the duration of postoperative analgesia in children undergoing elective sub-umbilical surgeries.

Methods

We conducted a prospective cohort study on outcomes of bupivacaine plain versus bupivacaine-clonidine mixture in caudal epidural blocks for children undergoing sub-umbilical surgeries. In our study, 131 children, aged 1–10 years underwent elective sub-umbilical surgeries were included. Both the induction and maintenance of anesthesia was performed by either Sevoflurane or Isoflurane. Of 131 patients, 69 received bupivacaine 0.25% plain and 62 were administered bupivacaine 0.25% with clonidine 1mcg/kg. The FLACC scale was used to assess the postoperative analgesia for 24hrs. The group of children received bupivacaine-clonidine mixture had lower pain scale compared to bupivacaine plain group which was statistically significant; $P < 0.05$. The requirement of rescue medicine was lesser in clonidine group as compared to bupivacaine plain group; $P < 0.05$. Hemodynamic parameters, pain and postoperative nausea and vomiting was performed by a nurse in the ward.

Results

The duration of intra and postoperative analgesia was significantly long in the clonidine 1mcg/kg-bupivacaine 0.25% (1.5-2mg/kg) group than the bupivacaine 0.25% (1.5-2mg/kg) for children underwent elective sub-umbilical surgeries and it was statistically significant; $P < 0.05$. The extubation time was used to assess the arousal from anesthesia; arousal from anesthesia in clonidine group was significantly prolonged; $P < 0.05$. There were no significant changes in hemodynamic and respiratory parameters during or after the surgery.

Conclusion

The addition of clonidine 1mcg/kg as an adjuvant to bupivacaine 0.25% in caudal epidural block prolongs the duration of postoperative analgesia in children undergoing sub-umbilical surgeries without any hemodynamic or respiratory side effects.

Keywords

Caudal Epidural Block, Anesthetics, Bupivacaine, Clonidine, Postoperative Analgesia, Sub-Umbilical Surgery

Cephalometry to Determine the Head Index for Children Younger Than Six Years of Age in Kindergartens at the Ministry of Higher Education in Kabul

Hassan Ali Panah MD

Introduction

Part of the anthropometry that measures and studies the dimensions of the head and facial is called cephalometry, and its findings are used in various medical branches. The standard amounts that derived from this measurement is different in each country because of various racial and geographical factors. Therefore, the measurements that obtained by researchers in other countries cannot be a criterion for determining the normal growth of head in other countries. Therefore, the present study was conducted with the aim of determining the standard head index and the frequency of the anatomical type of head in kindergarten children of the Ministry of Higher Education of Kabul in order to determine the standard index in year 1396.

Methods

This descriptive study was conducted for all male and female children less than 6 years of age at the kindergartens of Ministry of Higher Education in Kabul, which had no physical and mental problems in 1396. The measurements of the length and width of the head were measured by the Martin Caliper Cephalometry, and according to the protocol, the head index was determined and the frequency of different phenotypes of the head was determined in both male and female group.

Results

It was found that most of the heads in both male and female types were brachicephalic with a percentage of 56.82%, 31.81% of the heads were hyperbrachycephalic and 9.09% of heads were mesocephalic and 2.28% of heads were doligocephalic.

Conclusion

The results of this study indicate that the predominant phenotype of heads in children of less than six years in kindergartens at the Ministry of Higher Education in Kabul are brachicephalic in both males and females.

Keywords

Cephalometriy, Head Index, Anatomical Types of Head

Relationship Between Social Competency and Empowerment with Organizational Citizen Behavior at Private Institutes of Health Sciences in Kabul

Ali Jafari, Abdurreza Asadi

Introduction

Administrative staff and teachers play significant role in all modern universities. Empowerment and social competences can improve performance and increase organization productivity. This paper aims to examine the effect of social competence and empowerment on organizational citizenship behavior (OCB) of employees of private institutes of health sciences in Kabul in 2018.

Methods

The research was a descriptive-survey study; all teachers, administrative staff and managers (both gender, with different education level, age and position) were the population. The population was 539 and as per Morgan table, 225 were selected as the sample using stratified random method. 250 questionnaires were distributed, out of which 224 returned. In this study, three questionnaires were used: Nikraftar on social competence, Spreitzer on empowerment and Podsakoff and Mackenzie on organizational citizenship behavior. All three questionnaires were evaluated for reliability. Descriptive statistic, One-Sample Kolmogorov-Smirnov Test, Spearman test and multiple regression (step wise method) were used to analyze data. All analyses were run in SPSS, version 25.

Results

Demographic data showed 52% of participants in the study were female, 80% of participants were less than 30 years old and 60% of participants in the study were teachers. One-Sample Kolmogorov-Smirnov Test result showed data wasn't normally distributed ($\text{sig} \leq 0.001$), ($p \leq 0.05$). Spearman test result showed correlation between social competence, empowerment and organizational citizenship behavior was moderate ($r = 0.534$), ($\text{sig} \leq 0.001$). At the end, the result of multiple regression (step wise method) showed that adjusted R2 for empowerment in first model was 0.327 and when social competence added to the model, adjusted R2 increased to 0.369, ($\text{sig} \leq 0.001$). F test result showed both models in regression test were meaningful ($\text{sig} \leq 0.001$).

Conclusion

The study showed, there were significant relationships between all variables and It was also found that the social competence and empowerment can predict organizational citizenship behavior in private institutes of health sciences' employees in Kabul.

Poster Presentations

Abstracts

Presentation
Acalvaria, an Extremely Rare Congenital Malformation. Case Report
Adapting the Mothers on Respect Index(MORi) Scale in Kabul, Afghanistan
A Case Series Study on Kidney Transplanted Patients in Loqman Hakim Complex Hospital Located in Herat Province.
Albright Hereditary Osteodystrophy: A Rare Case Report
Association of Symptomatic Syringomyelia with Acute Bacterial Meningitis in a 3 Years Old Patient
A Rare Type of Progressive Myoclonic Epilepsy: A case of Lafora Disease (LD), Diagnosed at French Medical Institute for Mothers and Children, Kabul, Afghanistan.
Assessing the Perceptions of Patients Regarding Their Rights to Confidentiality, Privacy and Permission in Tertiary Care Hospitals in Karachi
Augmenting Public-Private-Partnership in Tuberculosis Case Finding in Afghanistan, a Document Review
Benign Bone Tumor Treatment in French Medical Institute for Mothers and Children (FMIC), Kabul, Afghanistan 2009 to 2014
Brain Ectopic Tissue in Sacrococcygeal Region of a Child, Clinically Mimicking Sacrococcygeal Teratoma: A Case Report
Cervical Ectopic Pregnancy: A Rare Site of Implantation with Life Threatening Outcome: (Case Report)
Demographic Profile of Gastric Cancer in Afghanistan
Descriptive Epidemiology of Acute Flaccid Paralysis Cases During 2018 in Kabul Province
Descriptively Exploration the Determinants of OPV in Missed Under Five Children in South Region During 2 Polio Campaigns of 2019
Diathermy in Tonsillectomy: Author Experience and Review of the Literatures
Description of Facial Trauma Patients Admitted to the Stomatology Hospital Kabul, Afghanistan: A Case Series
Effectiveness of Using New Technology in TB Diagnosis Among Children in Afghanistan
Effect of Urban DOTS on Tuberculosis Case Finding Among Prisoners in Kabul Prisons -A Document Review
Evaluating Accuracy of Free-Hand Pedicle Screw Insertion in the Treatment of Thoracolumbar Spine Fractures
Gender Disparity and Characteristics in TB Case Notification of Women in Afghanistan
Hypophosphatasia in Paediatric Population: An Experience from a Tertiary Care Center of Pakistan
Impact of Exercises with Relaxation and Warm Compressions in Reverting Breech to Cephalic Presentation After 37 Weeks of Pregnancy
Improving Door-To-Balloon Time by Decreasing Door-to-ECG Time
Improve Labor Room Midwives Competency in Neonatal Resuscitation Program (NRP)
Integrating Gender to Improve Maternal and Child Health in Afghanistan: The HEMAYAT Project's Approach
Investigation of Chickenpox Outbreak in Dara-e-Peach District, Kunar-Afghanistan-April 2019
Lactated Ringer's Solution Versus 0.9% Normal Saline (Ns) for Fluid Resuscitation in Acute Setting
Late Presenting Congenital Diaphragmatic Hernia Simulating Pneumothorax. A Case Report
Low Immunization Coverage Causes Outbreaks: Analysis of Four Measles Outbreak in Kabul Province, 2018
MRSA Disseminated Infection with Multiple Abscesses After Tattooing in a Teenager: A Case Report
Naturally Well Managed Case of Ectopic Pregnancy

Presentation
Nighedaasht: Improving Maternal Health Outcomes Through Digital Health Technology
Occurrence of Adverse Drug Reaction among Drug Resistant Tuberculosis Patients in Afghanistan
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Acalvaria, an Extremely Rare Congenital Malformation: Case Report

Dr. Reshadullah Jurat, Dr. Homayoon Atiq Ghairatmal

Introduction

Acalvaria is an extremely rare congenital malformation characterized by an absence of calvarial bones, dura mater and associated scalp muscles in the presence of basal skull bones, facial bones and complete but abnormally developed cranial contents covered by a scalp. It occurs at a frequency of less than 1 in 100,000 births. Since, acalvaria is usually a fatal anomaly and with only few survivors with this condition, treatment is limited. Acalvaria has been reported in association with other abnormalities

Case Description

We present a case of a 3 days old female neonate with acalvaria presented to us with complaints of abdominal distention and vomiting. The neonate was born preterm at 37 weeks gestation having weight of 3 Kg and head circumference 30 cm.

At clinical examination the shape of the head was normal; however, on palpating, it was obvious that the major flat bones of the cranium, namely the parietal bilaterally and frontal partially, were missing. She had protruded eyes with distended abdomen and no anal opening, upon further examination a recto-vaginal fistula was identified.

Non-enhanced CT scan of the brain was obtained and it showed normal morphological appearance of the brain, with a normally developed skull base and facial bones and absence of both parietal bones of the skull. Abdominal ultrasonography reported bilateral moderate hydronephrotic kidneys. She went to surgery and further findings were bicornate uterus with thickened walls and patent urachus. We did a double barrel colostomy for her and till a year of follow up she has survived and doing well.

Conclusion

Acalvaria is an extremely rare congenital anomaly with only a handful of cases reported in literature. Management of acalvaria is also not well defined as its aetiology in two separate cases are not the same. It is usually a fetal anomaly with only few survivors.

Adapting the Mothers on Respect Index (MORi) Scale in Kabul, Afghanistan

Parwana Hamdam, MPH, BSPH

Introduction

Understanding disrespect and abuse during childbirth have great implications for reducing maternal deaths around the globe. Usually, the problem of maternal mortality is tackled through the lens of the inability of women to access and pay for health care facilities, however, it has been shown that the issue of maternal morbidity lies behind the mistreatment and violence committed by a health worker during childbirth. It would be useful to explore the extent of disrespect and abuse among mothers giving birth in Afghanistan to understand how that plays a role in explaining access and use of health care services during childbirth. Therefore, the aim of this study is to adapt the MORi scale, which has been proven efficient in capturing D&A (Disrespect and Abuse) in other contexts, to the context of Afghanistan.

Methods

A qualitative method was used as a study tool to collect information from all women between 18-49 have used maternal healthcare services in the selected hospital.

Results

- Physical, verbal and sexual abuses
"It was my first birth and I had very severe pain and bleeding. I couldn't tolerate the pain that's why I start crying. The Dr came and laughed at me and told me you people are very shameless I know you will come next year again."- A woman from Kabul.
- Discrimination Based on financial status and networks (WASETA & SHERNE)
"Money makes the childbirth very easy in the hospital."- A woman from Kabul
- Non-Consented Care
Women were not given the right or were not involved in any kind of decision-related to her and childbirth.
"We are just like symbols (things); we don't have the right to talk." - A woman from Kabul
- Non-confidential Care and Privacy
No accounts of non-confidential care have been reported in Afghanistan.
"During my childbirth, I asked the doctor to put down the curtain around the bed since this way I feel more comfortable." - A woman from Kabul

Conclusion

Respectful Maternity Care is the right of all women giving birth in every health system all around the world. The findings of this study will contribute to informing organizational quality improvement initiatives, and health systems policy reform to prioritize patients' issue. For policymakers and local stakeholders, it is significant to respond to the challenges of providing respectful care that exist at the community and national level.

A Case Series Study of Kidney Transplanted Patients in Loqman Hakim Complex Hospital, Herat, Afghanistan

Dr. Nadia Ghazanfar

General Surgery Specialist and Kidney Transplantation Surgeon, Loqman Hakim Complex Hospital

Objective

To evaluate the success rate of all 375 patients who had gone under kidney transplantation operation in Loqman Hakim Complex Hospital.

Methods

This is a Case Series study type which has been done on 375 patients who had gone under kidney transplantation operation.

Results

Seventy-two percent of our patients were male, only 28% were female. Age range of participants in this study was 10 to 60 years while 27% of them were between 30 to 40 years old. Only 6% of our patients were reaching 60 years of their age. Participants of this study were Herat residents (27%), while 44% were residents from other provinces. In addition, 29% of our study population were residing outside of Afghanistan. In this study 23% of the kidney donors were relatives of the patients. The cause of end stage renal disease in majority (30%) of our study population was Diabetes Mellitus, followed by Hypertension (25%). There was only one case of hyper acute rejection and one case of chronic rejection. Mortality rate in this study was 1.3%.

Conclusion

Conclusion: Based on the study findings we can conclude that the overall success rate is high considering a few complications as well as a low mortality rate.

Albright Hereditary Osteodystrophy: A Rare Case Report

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Introduction

Albright hereditary osteodystrophy (AHO) is a rare hereditary metabolic disorder that may be associated with or without resistant to parathyroid hormone (Pseudohypoparathyroidism). The phenotypic characteristic of AHO are short stature, round face, short neck, obesity, subcutaneous ossifications and brachydactyly especially of 4th and 5th digits, Pseudohypoparathyroidism (PHP) is characterized by inability of the body to respond appropriately to parathyroid hormone, characterized by hypocalcemia, increased serum parathyroid hormone concentration, insensitivity to biologic activity of parathyroid hormone and hyperphosphatemia. AHO when seen in association with resistance to parathormone, is called PHP. It's about 1/100000 and twice as frequent in females than in males.

Case Presentation

A case report of 16 years old female patient referred to the FMIC by provincial hospital, she presented with history of abnormal movement of limbs and eyes since early childhood and never controlled, she also had dental carries and poor periodontal status. Family history reveals no consanguineous marriage of his parents.

General physical examination revealed short stature, round face, short neck, sparse hair on scalp, depressed nasal bridge, coarse face and skin texture, brachydactylic of hands and feet. Patient was obese with BMI 35.3 for a height 133cm weighing 62kg.

Laboratory investigation revealed serum Calcium (4.6mg/dl), serum phosphate (7.6mg/dl) and PTH (85pg/ml) VitD (5ng/ml) and TSH was normal. CT of brain reveals calcification involving basal ganglia, periventricular region and cerebellar hemispheres.

Detailed history and examination revealed us in identifying the key features which includes history of seizures, short stature, obesity, brachydactylic of 4th digit, Brain CT showed calcification, initial hematological examination reported low calcium and to rule out PHP, parathormone and thyroid function test were done which were normal. A final diagnosis of AHO was established and treated with high dose of calcium and active Vit D3 along with AEDs. There was a considerable improvement.

Conclusion

The finding of AHO described in our report contribute to the clinical picture of AHO is developing in the literature. Since hypocalcemia and hyperphosphatemia leads to many complications, prompt diagnosis can save life and improve life quality there is little information on the management and diagnosis of this disease a precise diagnosis could facilitate better out come and treatment of these patients.

Keywords

Albright Hereditary Osteodystrophy (AHO), pseudohypoparathyrodism (PHP), hypocalcaemia, brachydactylic.

Association of Symptomatic Syringomyelia with Acute Bacterial Meningitis in A 3 Years Old Patient

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Introduction

Syringomyelia is a cystic distention of the spinal cord caused by obstruction of the flow of spinal fluid from within the spinal cord to its point of absorption. Because of its slow progression It is a very rare condition in children younger than 5-years-old.

Syringomyelia may result from congenital or acquired brain and spine pathologies including spinal including malformation, trauma, infections, tumors and inflammation. If no cause is found, then it's called idiopathic. Sign and symptoms of syringomyelia includes weakness of limbs, numbness, muscle atrophy, trophic ulceration, sphincters dysfunction, pain and spine deformity.

Objective

To report the occurrence of symptomatic syringomyelia in a 3-year-old child associated with acute bacterial meningitis (ABM)

Methods

This is a case report of 3-year-old patient who was presented with one-week history of lower limb weakness and numbness, loss of sphincter control associated with fever, headache, vomiting and drowsiness.

Results

CSF analysis on 1stday of admission was as follow:

Glucose 2mg/dl, protein 13340mg/dl, Cells 4800/cu mm [PMN 20%, Lymphocyte 80%], CSF culture was negative.

Brain MRI was normal.

Spine MR revealed significant cystic syringohydromyelia along the dorso-lumber spine from the D8 to L1 vertebrae effacing the extradural space at this level measuring 9.7cm x 1.1cm in cranio-caudal and transverse diameters respectively.

Treatment for ABM started according to the hospital protocol. Patient had good clinical improvement. On 4thday of treatment patient was afebrile, had no vomiting and was able to set on bed and play with toys. 2ndCSF analysis also showed much improvement.

After completion of antibiotic course, the patient referred to neurosurgeon.

Conclusion

Symptomatic syringomyelia may occur even in children less than 5-year-old. We suggest CSF analysis in selected cases of syringomyelia to rule out associated central nervous system infection. Does bacterial meningitis precipitate signs and symptoms of syringomyelia? Are patients with syringomyelia more prone to the central nerve system infections? Further studies are needed to answer these questions.

A Rare Type of Progressive Myoclonic Epilepsy: A Case of Lafora Disease (LD), Diagnosed at French Medical Institute for Mothers and Children, Kabul, Afghanistan.

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Introduction

LD is a rare, fatal, autosomal recessive disorder, characterized by progressive neurological dysfunction, myoclonus, cerebellar ataxia, mental disorder and focal or generalized seizures. LD is rapidly progressive, usually fatal within 2nd and 3rd decade of life. Patho-physiologically, it is due to mutations in the EPM2A (laforin) and EPM2B (malin) genes that are committed to produce abnormal glycogen (polyglucosan). Pathologically, poly-glucosan inclusion bodies called Lafora bodies (LB) are seen in the cytoplasm of glycogen producing cells, typically found in the brain, liver, and in the eccrine duct and apocrine myo-epithelial cells of sweat glands of skin. LB are pathognomonic for LD and are not seen in any other types of progressive myoclonic epilepsy.

Case Presentation

We report a case of 23 years old male who presented with weakness in the lower limbs associated with tremor and seizures, developed over the past 2 years. We received three gray-white axillary skin biopsy tissues, in which the largest measured 0.8cm x 0.5cm x 0.5 cm. On microscopic examination of the haematoxylin-eosin stained sections, there were clusters of eccrine sweat glands, which were lined by simple cuboidal epithelium with intra-cytoplasmic inclusions of different sizes. Periodic acid-Schiff (PAS) stained sections highlighted the inclusion as LB.

Conclusion

Currently, the management of LD is mostly supportive and efforts at identifying agents to reduce brain glycogen synthesis appear to be highly promising. Future therapeutics for LD has to revolve around the pathogenesis of the disease. To our knowledge, this was the first case of LD diagnosed in Afghanistan.

Keywords

Lafora disease, Lafora bodies, progressive myoclonic epilepsy, laforin.

Assessing the Perceptions of Patients Regarding Their Rights to Confidentiality, Privacy and Permission in Tertiary Care Hospitals in Karachi

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Objective

The awareness of patients regarding their rights is imperative for their own safety and for ensuring the provision of healthcare of the highest standard. The objective of this study was to evaluate the awareness of male and female patients with regards to their rights of confidentiality, privacy and permission.

Methods

This cross-sectional study had a sample size of 384. Questionnaires were administered to and interviews were conducted from adult patients presenting to outpatient clinics at a public and a private sector hospital in Karachi, Pakistan.

Results

Most respondents had an inadequate level of understanding of their right of permission and an even poorer understanding of their rights to confidentiality and privacy.

Respondents from a higher socioeconomic status had greater awareness of their rights. More awareness was noted in a private tertiary care hospital than its public sector counterpart.

Conclusion

Most people have an unsatisfactory level of knowledge of their rights to permission, confidentiality and privacy, which may be due to our cultural norms. A sound knowledge of their rights enables patients to be more actively involved in their therapeutic process and helps contribute to decision making, increasing treatment compliance. To get a more transparent picture, future studies should include more hospitals also keeping in mind all cultural barriers faced during this research.

Augmenting Public-Private-Partnership in Tuberculosis Case Finding in Afghanistan, A Document Review

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Introduction

Afghanistan National Tuberculosis Program (NTP), with support from the USAID- funded Challenge TB (CTB) project, implemented Public-Private-Partnership (PPP) and Urban DOTS (Directly Observed Treatment, Short Course) approach in Kabul in 2009 and expanded to other five cities of Kandahar, Herat, Jalalabad, Mazar-i-Sharif, Pulikhomri in September 2015 and three new cities Taloqan, Gardiz and Khost in January 2018. The PPP approach focused on strengthens coordination mechanisms and established partnerships between the NTP, public and private health sectors. The NTP assessed the implementation outcome to understand the impact of DOTS on case finding in public and private health facilities (HFs).

Methods

NTP and CTB trained frontline healthcare workers on TB service delivery, distributed anti-TB drugs, laboratory consumable and DOTS packages, which included educational materials, sputum sample

transferring materials and medication boxes with patients' entire treatment regimens. NTP and CTB conducted regular supervision and monitoring to urbanDOTS HF. Patients received free diagnosis and treatment in public and private HF. NTP and CTB technical teams evaluated the role of PPP on TB case notification and outcomes, and reviewed TB data from the 2015 - 2018 and compared it with national TB surveillance data.

Results

DOTS coverage reached 49% (137 out of 282 HF) in 2018; 10,813 TB cases notified in 2018 compared to 5,519 in 2016 (P-value < 0.00001).

Of the 10,813 cases; 3,746 (2,177 in 2015) were bacteriologically confirmed TB (See Table 1).

Among 10,813 TB; 2,584 (24%) were detected by the private health sector that was only 329 in 2015. The treatment success rate increased by 5% and reached to 86% at the end of 2018.

Conclusions

PPP and urban DOTS approaches contributed to significant improvements in case notification. The private health sector's contribution to case notification is significant. We recommend the scale-up of both approaches in other cities in Afghanistan, and in similar settings globally.

Benign Bone Tumor Treatment in French Medical Institute for Mothers and Children (FMIC), Kabul, Afghanistan 2009 to 2014

Dr. Shekaib Rahman Behroz, Dr. Ezatullah Faiz, Dr. Hashmatullah Zia

Introduction

Tumors of musculoskeletal system present a variety of challenges. The orthopedics doctor manages many type of benign tumors easily with a good outcome, but sometimes serious complications develop. Surgeons with specific expertise in oncology provide the best treatment for patients with malignant tumors. Some of these lesions can be observed without any form of intervention, while others require complete bloc excision, incisional or excisional biopsy followed by bone graft and complete reconstruction.

Objective

The aim of this study is to become familiar with presentation of most common benign bone tumors, to establish proper diagnosis and manage them by effective methods.

Methods

A case series study design was employed. Data was collected from the available records of 49 participants who had undergone treatment at FMIC from the period of 2009-2014. The statistical analysis was done by using SPSS Version 23. The patients were evaluated based on the natural history, radiographic findings and results of the surgical excisional biopsy.

Results

The mean age of participant was 9.8 years and a range of 1.5-18 years. These patients were followed for 2 years. Majority 32(65.4%) of the participants were male and 17(34.5%) were female. Regarding the type of bone tumors, we observed Aneurysmal bone cyst in 7(14.3%) participants, simple bone cyst in 11(22.5%), Chondroblastoma in 1(2%), Enchondroma in 2(4%), Enchondromatosis in 1(2%), Fibrous dysplasia in 1(2%), Hamartomatous in 1(2%), Osteoid Osteoma in 3(6.2%), Osteochondroma

in 19(38.8%) and Non-Ossifying Fibroma in 3(6.2%) participants. 95-97% of patients were healed after bone graft in one step surgery and 3-5% of them required second time operation.

Conclusion

Treatment of benign bone tumors are different based on natural history and biological behavior. There are several potential pitfalls in the diagnosis and treatment of benign bone tumors, but can be minimized with careful systematic approach and treatment, when in doubt, consultation with an expert orthopedic oncologist will help to determine the best approach for the patient. Doing so will minimize the risk of under treatment or over treatment.

Brain Ectopic Tissue in Sacrococcygeal Region of a Child, Clinically Mimicking

Sacrococcygeal Teratoma: A Case Report

Ramin Saadaat, MD, Jamshid Jalal, MD, PhD, Ahmed Nasir, MBBS, Soma Rahmani, M.Phil, Hidayatullah Hamidi, MD.

Introduction

Mature brain heterotopic tissue in sacrococcygeal region is a very rare benign congenital abnormality of new-born. To date, only two cases of mature heterotopic brain tissue in the sacrococcygeal region is reported by literature. Heterotopic brain tissue in other areas such as lung, nose, face and retroperitoneal region are also rarely reported. Meanwhile, rather than brain heterotopic tissue in sacrococcygeal region, a case of adrenal gland heterotopic tissue in sacrococcygeal region also has been reported.

Case presentation

A 3.5 month-old male baby presented with history of sacrococcygeal mass since birth. Clinical examination of the child was good with no other problem. Sacrococcygeal region revealed an elevated round mass with no discharge. Computed tomography reported a large sacrococcygeal teratoma type-III arising from the sacrococcygeal region extending intra-abdominally to the level of L2 vertebral body. The mass was excised by the impression of sacrococcygeal teratoma (SCT). On gross examination, a gray-white irregular tissue fragment with 5 cm in greatest dimension was examined. Cut sections showed homogenous yellowish white appearance. Histological examination revealed solid fragments composed of mature neural tissue comprising glial cells and astrocytes with no other germ cell layer component.

Conclusion

Mature brain heterotopic tissue in sacrococcygeal area is a rare benign disease. Two ectopic brain tissue in sacrococcygeal region were previously also reported. Sacrococcygeal teratoma is the most common congenital tumor, but this current rare case of heterotopic brain tissue in sacrococcygeal region should also be in the differential diagnosis.

Keywords

Heterotopic brain tissue, congenital malformations, sacrococcygeal teratoma.

Cervical Ectopic Pregnancy, A Rare Site of Implantation with Life Threatening Outcome: Case Report

Dr Nelab Haidari

Introduction

Cervical ectopic pregnancy (CP) is a rare condition with an incidence of less than 0.1% of all ectopic pregnancies. It is associated with a high morbidity and mortality potential. Timely intervention is required to preserve fertility and avoid the need for a hysterectomy.

Case Presentation

31 years old women G2 P1 presented to outpatient department by complain of 35 days' amenorrhea with breast tenderness. No pain and no bleeding. Past medical and surgical histories were unremarkable. After initial workup for amenorrhea quantitative BHCG was found 5550 and by vaginal ultrasound she was diagnosed cervical ectopic pregnancy with positive cardiac tube pulsation at 6 weeks' gestational age. Conservative management with methotrexate was started and with two doses pregnancy was missed and BHCG was declined. After 3 months follow up normal findings by vaginal ultrasound was found.

Conclusion

Cervical ectopic pregnancy is a rare case occurring in approximately 0.1% of ectopic pregnancies. And occur in majority of low parity women thus reproductive function should be preserve. Early diagnosis allows early intervention, increasing the likelihood of conservative management.

Keywords

Cervical Pregnancy, Beta Human Chorionic Gonadotropin, gravid, parity and curettage, but others include

Demographic Profile of Gastric Cancer in Afghanistan

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Introduction

Gastric cancer is the 2nd most common cause of death among all cancers and the 5th most common cancer in the world. The number of deaths due to gastric cancer is about 723,000 every year. It is more common in men as compared to women. The incidence of gastric cancer has 20-fold variation worldwide. In Asia, it is the third most prevalent cancer after breast and colorectal cancers. The gastric cancer rate in Middle East differs from very high in Iran to low in Israel and very low in Egypt.

Methods

A retrospective analysis of patient's records at the Oncology Department of Jamhoriat Hospital in Kabul, Afghanistan was conducted in a one-year period. Data of patients diagnosed with gastric

cancer was obtained from the registers of oncology department from march 2018 to march 2019. Variables of interest included: age, gender, ethnicity and place of residence of the patients.

Results

A total of 1324 cancer patients attended the oncology department in one year, of these, 174 patients were diagnosed with gastric cancer. There were significantly more gastric cancer patients among males (69.5%) relative to females. With regards to ethnicity, the Tajeks contributed majority of the cases presenting with gastric cancer and most of them belonged to the Kabul province. There were significantly more cases of gastric cancer in northern provinces and most of them were above 50 years of age and males.

Conclusion

This retrospective study aims to provide information about prevalence and demographic characteristics of patients with gastric cancer in Afghanistan. However, there is lack of literature regarding gastric cancer in this war-torn country.

Descriptive Epidemiology of Acute Flaccid Paralysis cases during 2018 in Kabul province

Homeira Nishat, Dr. Tawfiq Nazri, Dr. M. Islam Saeed, Marzia Mohmand

Introduction

Afghanistan and Pakistan are the only remaining polio-endemic countries globally. Surveillance for Acute Flaccid Paralysis (AFP) is one of the four cornerstone strategies of the Polio Eradication Initiative. This study aims to describes AFP cases in terms of time, place and persons and compare public surveillance systems reporting these cases such as AFP surveillance and National Disease Surveillance Response in Ministry of Public Health.

Methods

We accessed the dataset for AFP surveillance which was reported via AFP surveillance in Expanded Program of Immunization (EPI) and NDSR and conducted a descriptive study of characterizing time, place and person of these cases. The dataset was restricted to Kabul province, 2018. Using Epi Info 7 and Microsoft Excel we calculated mean, median and Standard deviation and generated proportions, tables, and graphs.

Results

In this study 286 cases were reported by AFP surveillance and 181 cases reported by NDSR. Of them 168(59%) were female and 118 (41%) male reported by AFP surveillance and 81(45%) female and 100(55%) male reported by NDSR Surveillance. The mean age of cases was 57.8 ± 43.7 month. The high proportion of cases (32%) were in age group of less than 30 months. The most common cause of patients was Guillain–Barré syndrome (GBS) (58.4%). We did not found any poliomyelitis caused by wild polio virus. Stool condition (sample) of all cases were in good condition. Cases were received 253(88%) vaccine in routine and national immunization days. Most of the AFP cases occurred during spring season.

Conclusion

There is a discrepancy in number of cases which are reported by two public surveillance system in Afghanistan. It could affect quality of data as well possibility of waste of resources. No case of

poliomyelitis was found with wild polio virus and this would indicate that polio virus immunization schedule in Kabul province is highly efficient. Accurate surveillance for poliomyelitis is essential for continuing eradication.

Keywords

Acute Flaccid Paralysis, AFP surveillance, Poliomyelitis, NDSR

Descriptively Exploration the Determinants of OPV in Missed Under Five Children in South Region During 2 Polio Campaigns of 2019

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Ministry of Public Health

Objective

To highlight the determinants of under-five OPV missed children of Jan and Feb SIAs to be analyzed for improving the quality of campaign in 5 provinces of southern region

Methods

Descriptive study of secondary OPV administrative data of Jan and Feb campaigns was analyzed. OPV vaccine coverage compile in specific excel formats at cluster, district and provincial levels. Missed children are part of these formats. The formats have 18 general variables for first working day and it is the same for other 3 days. Missed children are one of the important variables and it has divided by 2 main categories Not available (NA) and Refusal. Children who are not covered on last day (4th day) day of campaign due to mentioned 2 categories is called final missed children and it compiles in last part of the format.

Results

The data was collected from 25 out of 50 districts of 5 provinces of southern region. Total 24151 out of 57133 under five children were missed due to NA in capitals of the provinces (KDR city= 39% Lashkargah city= 33%, Zaranj city=82%, Tarinkot city=55%). Total 16136 out of 36236 under five children were refusal in 5 districts of Kandahar province which it indicates high number of total refusal children (44%). Also Spinboldak district which it has long border with Pakistan and recorded 19% of missed children due to NA. Khashrod district of Nimroz province has reported 92% of total provincial refusal.

Conclusion

Total 42% of total missed children due to NA was recorded in capitals of the provinces and 49% of total refusal was recorded in 6 districts of Kandahar and Nimroz provinces, while MoPH focuses on Polio eradication, So Provincial Public Health team should focus on missed children which identified in my study, to vaccinate all under five children and to stop the circulation of Polio virus in southern region.

Keywords

Missed Children, Not available, Refusal, OPV, Campaign, South Region, Descriptive

Diathermy in Tonsillectomy: Author Experience and Review of the Literatures

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Introduction

Tonsillectomy is the most frequently performed surgical procedure among otolaryngologist around the world. Bleeding is the main and most occurring complication of tonsillectomy. Bipolar diathermy is a popular technique in dissection and/or hemostasis of tonsillectomy procedure.

Objectives

the objective of our case series study is the introduction of our experience in post tonsillectomy secondary bleeding by using diathermy for dissection & coagulation in a complex hospital in Kabul Afghanistan and review of the literature.

Method

We done a retrospective study of, patients who undergone tonsillectomy or adenotonsillectomy by diathermy (power 20-30 Watt) dissection and hemostasis, in a complex hospital in Kabul between Feb 2013 until March 2018.

Results

During period of Feb 2013 until March 2018, we performed 53 tonsillectomy and adenotonsillectomy by Diathermy method. Among 53 patient 3 patients readmitted for clinical evaluation of secondary bleeding. For two patient we just removed the clot from tonsillar bed and give them supportive treatment (fresh isogroup blood, antifibrinolytic, IV fluid, antibiotics, antiseptic gargle) and 24 hrs hospital observation. The third patient referred to Operation Theater and under general anesthesia the bleeding point electrocauterised, and after 24 hrs the patient discharged from the hospital.

Conclusion

Our findings showed that, although the bleeding during procedures of tonsillectomy by diathermy is lesser than cold method, but the secondary post tonsillectomy bleedings rate and severity is higher than cold method. We can use diathermy in tonsillectomy with low power and infrequently, just for small points and superficial bleeding and pillars dissection. To find answer for the question of which method is better than other, we need more randomized control trial (RCT) for the confirmation of superiority of one method over another method (cold method, diathermy).

Description of Facial Trauma Patients Admitted to the Stomatology Hospital Kabul, Afghanistan: A Case Series

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Introduction

Facial trauma is a serious global concern due to each person subjected to the ordinary risk of everyday life, is a potential candidate for injury to the face. The aim of this study was to determine the frequency of causative factors of facial injuries in IPD patients

Methods

A descriptive case series study was conducted from patients file records. Patient in case of maxillofacial skeletal injuries in IPD during April 2018 to September 2018 were reviewed. Data was entered and analyzed with the help of SPSS version 21,0. The collection was obtained from the Ethical Review Committee of Stomatology Hospital.

Results

There were 119 patients among (10-50) ages. Male 73(61,3%) female 46(38, 7%). according to the study the causative factors are Road Traffic Accident 39(32,8%), Gunshot 13(10,9%), Interpersonal violence 25(21,0%), pressure cooker explosion 14(11,8%) and fall down 28(23,5%). According to the diagnosis mid face fracture 28(23,5%) and lower face fracture 91(76,5%).

Conclusion

The most causative factors in male patients was RTA and in female was fall down

Effectiveness of Using New Technology in TB Diagnosis Among Children in Afghanistan

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Introduction

Afghanistan National TB Program (NTP) introduced the policy of tuberculosis (TB) screening using clinical signs and symptoms for every new child entering children's wards in 2016. Previously; paediatricians had been using the older analog X-ray. In July 2016, we introduced digital X-ray screening for identifying TB among children.

Digital X-ray imaging has brought obvious benefits to TB diagnosis among children, usually new technologies requires changing in behaviour and process. The cost, productivity, new skills, radiation doses and image quality was the main concern.

Methods

The implementation of digital X-ray TB screening started in five pediatric wards in Kabul, Herat, Balkh, Kandahar and Baghlan provinces, and targeted at presumptive TB cases among children. All children with abnormal chest X-ray images over the age of eight gave sputum samples for microscopy examination and Tuberculin Skin Test (TST).

Results

From September 2016 to December 2018, this intervention was implemented in 5 public hospitals. Among 27,261 children visiting the hospitals; 9,984 had symptoms suggestive of TB and sent for chest x-ray. Of these; 2,438 (24.4%) had an abnormal chest x-ray image suggestive of TB, and were therefore classified as real presumptive TB cases. 1,645 of them referred to check their sputum and 351 (21.3%) of these identified as bacteriologically confirmed TB. All 2,438 children with abnormal X-rays tested tuberculin skin test (TST). Of them, 884 (36.2%) had over 10mm skin induration.

Additionally, the X-ray films were sent to X-ray specialists for their opinions. This confirmed that 1,203 (12%) of them had lesions suggestive of TB, so they put on treatment (See table 1).

Conclusions

Using this digital X-ray technique for TB screening may lead to the detection of TB cases not routinely found by clinical screening, especially among children. The role of digital X-ray is highly significant among children and we recommend expanding these technologies nationwide.

Effect of Urban DOTS on Tuberculosis Case Finding Among Prisoners in Kabul Prisons - A Document Review

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Introduction

In 2018, there were about 12,500 inmates within two prisons. Before 2015, no complete tuberculosis (TB) services or reporting systems existed in Kabul prisons, which resulted in low TB case findings. Only 37 cases of all forms of TB within prisons was reported in 2014. The National TB Program (NTP) with support from the USAID-funded Challenge TB (CTB) project expanded the urban DOTS approach. This involved public and private health care providers in TB control efforts, to two main prisons in Kabul to address this gap.

Methods

After signing a memorandum of understanding with the appropriate ministries and conducting a baseline assessment, CTB created a targeted intervention to combat TB among the prisoners. The CTB project trained 22 medical staff on: TB case management; proper recording and reporting processes; improved supervision, monitoring, and feedback loop to prison TB clinics; and conducting active screening through mobile X-ray. The NTP and CTB technical teams reviewed data collected from 2015-2018 using standard NTP reporting tools and compared the information with existing surveillance data.

Results

In 2018, 229 cases of all forms of TB were identified in prisons, compared to 37 cases in 2014 (P Value <0.0000001). Out of 229 cases, 90 of them were bacteriologically confirmed TB cases in 2018, compared to 2014 it was 31 cases. In five years a total of 30,588 all forms of TB cases were identified in Kabul, of which 893 (3%) were in prisons. Of the total 9,596 bacteriologically confirmed TB cases in Kabul, 391(4%) were from prisons. The incidence of TB among inmates was 1823/ 100,000 population, while it was 146 in general populations of Kabul.

Conclusion

Urban DOTS services in Kabul prisons made significant improvements to case finding among inmates and recommended engaging other prisons in TB services as high risk vulnerable groups.

Evaluating Accuracy of Free-Hand Pedicle Screw Insertion in the Treatment of Thoracolumbar Spine Fractures

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Introduction

As traumatic thoracolumbar spine fractures are commonly occurring pathology and in the most cases trans-pedicle screw fixation is a commonly used treatment for it, although in current era there is much technological advancement in placing T-P screws, but still there are conditions in which we don't have all these intraoperative imaging technologies in our hand and our hand are free of these (free hand). We have to treat (operate) the patient lying only on anatomical knowledge.

Objective:

To analyze the accuracy of free-hand pedicle screw insertion in the lower thoracic and lumbar spine vertebrae for the treatment of thoracolumbar spine fractures.

Materials

It is a single department, prospective case series. We analyzed consecutive operated patients of thoracolumbar spine fracture during the period of 1 year (2016). All of them were operated by pedicle screw technique. All the screws were inserted with free-hand technique using anatomic (palpable and visual) landmarks as a guide for an entry site. Post operatively evaluated its accuracy by anterior-posterior and lateral spine X-ray.

Result

During 12-month period ,121 patients were operated for thoracolumbar spine fracture with pedicle screw technique. A total of 792 screws were inserted with free hand technique, of which 757 (95.5%) screws were correctly placed while only 35 (4.4%) were misplaced (lateral, medial, superior and inferior displacement; long screw).

Conclusion

Free-hand pedicle screw placement is safe technique, may decreases operative time and radiation dose. It can be a reliable technique especially in the treatment of thoracolumbar spine fractures with limited intraoperative imaging resources.

Gender Disparity and Characteristics in TB Case Notification of Women in Afghanistan

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Introduction

Tuberculosis (TB) is a major public health problem in Afghanistan. Worldwide, the male to female ratio of TB cases is approximately two to one, contrary the female to male ratio in Afghanistan is 1.38 (58/42). Afghanistan is one of the few countries in Eastern Asia with a relatively higher number of female cases, providing a strong foundation for studies on socio demographic factors and gender differences in TB infection. The purpose of this study is to assess the gender differences and characteristics of TB in Afghanistan during 2016-2018.

Methods

Nation Tuberculosis Program (NTP) and Challenge TB technical teams collected the secondary data obtained from surveillance department and the data from health facilities' registers from 2016-2018. The team reviewed, analyzed and integrated the data. Dis-aggregated sex-specific case notification rates were calculated and examined.

Results

Out of (139,156) all forms of TB diagnosed, 58,905 (42%) were male and 80,252 (57,6%) were female and 63,227 (23,789 males and 39,438 females) were identified as bacteriologically confirmed TB cases which is close to 45.4% of all cases. The results show that 58.1% of all form of TB cases diagnosed at public and private health facilities in 2015-2018 was female and 62.3% of bacteriologically confirmed TB cases were female during this period. The number of all form TB cases is higher among women in the age group of 15 to 54 and reach to 59%.

Conclusion

These findings suggest that females are significantly affected by the TB burden in Afghanistan. The existing gender disparity requires a coordinated effort to further explore the causes of increased acquisition and progression of TB among females in the country to guarantee effective TB control. The extent to which women have to negotiate their ability to seek and obtain healthcare in the country likely impacts the male-female TB differences in the country.

Hypophosphatasia in Paediatric Population: An Experience from A Tertiary Care Center of Pakistan

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Objective

Little attention has been paid to hypophosphatasia or low serum alkaline phosphatase (ALP) levels. Our aim was to determine the frequency of low serum ALP in pediatric population being tested for ALP in our laboratory.

Methods

A retrospective laboratory based study was conducted over a period of ten years. Serum ALP of all children (<18 years) being tested at the clinical laboratory of AKUH from January 2007 to December 2016 were extracted from laboratory information system along with their demographics. The data was double checked by two data entry operators in EpiData (version 3.2) and data entry errors were removed. Duplication values like matched and mismatched were also checked by XLSTAT software. Clean data then was converted into SPSS (version 21). Frequencies and percentages were calculated for all study categorical values. Quantitative variable was calculated in terms of mean and standard deviation i.e. age and ALP. Cut off < 100 U/L was taken for low serum ALP.

Results

In ten years a total of 180,000 children were tested for serum ALP out of which low ALP values were seen in 21886 children (12.1%). Out of the total children with low ALP 66.3% (n=14532) were females

and 33.5% (n=7351) were males. Children were further stratified into four age groups and low ALP was found in 1% (n=1789) in age <5 years, 0.60 % (n=1152) in age group 5-10 years, 2% (n=3677) in age group 11-14 years and 8.3% (n=15268) in age group 15-18 years.

Conclusion

The frequency of low ALP was noted in 12.1% of the children. Patients with low ALP require further clinical, biochemical and radiological assessment to rule out hypophosphatasia.

Impact of Exercises with Relaxation and Warm Compressions in Reverting Breech to Cephalic Presentation After 37 Weeks of Pregnancy

Azada Hussain Ali, Atifa Popal

French Medical Institute for Mothers and Children

Objective

To measure the impact of exercises with relaxation and warm compressions in reverting breech into cephalic presentation after 37 weeks of pregnancy.

Case Presentation

It was observed that exercises like; knee chest position, crawling with relaxation and warm compressions are helpful in reverting breech fetal presentation into cephalic presentation after 37 weeks of gestation.

Conclusion

Healthcare providers consider exercises when it comes to breech presentation. They directly opt for External Cephalic Version and if failed, then mostly end up in either elective or emergency caesarean sections; especially if the gravida is primi or second. Exercises if advised and followed with commitment and involvement of client and family can revert breech presentation to cephalic. Promoting these exercises will eventually help in decreasing the rates of caesarean sections.

Improving Door-To-Balloon Time by Decreasing Door-To-ECG Time

Kiran Siraj, Anaiz Ahmed, Zuhra Kashif, Amina Khan, Javed Tai

Introduction

ECG is the foremost diagnostic tool to get an early identification of all those patients who has myocardial infarction. After the introduction of service line in our hospital in 2017, we analyzed the need of a separate cardiac Emergency. Then we further investigated the causes of late Door to balloon time among which late ECG was one of the prime causes of late Door-to-Balloon time. We started collecting data on it. Soon after the initiation of cardiac emergency, we reinforce our paramedical staff the importance of timely ECG in myocardial infarction patients. This initiative took us to the remarkable achievement of the benchmark.

Objective:

To see the importance of timely ECG in emergency room that results in an improved Door-to-balloon time. Also define the factors causing delays and strategies to improve the Door-to-ECG and Door-to-Balloon time.

Method

We conducted a pre and post interventional study of all those patients who came in emergency room with chest pain or cardiac related symptoms. We identified factors such as lack of knowledge

among paramedical staff, delaying in transfers, arrival of doctor for the ECG interpretation, and availability of Cath lab. The primary intervention involved creating a chief complaint-based “cardiac triage” designation that streamlined the evaluation of potential cardiac patients. We followed standard American Heart Association Guidelines and made benchmarks for the improvement. The outcome showed an early ECG within 10 minutes with cardiac related symptoms. The study took two years duration from 2017-2018 among 335 STEMI patients. The clinical outcomes were defined as early primary intervention in STEMI patients and decreased mortalities except those who had clinical instability.

Results

The result shows 99% improvement in door to ECG time in emergency room thus improving door-to-Balloon time. The graph shows a positive skewed from 90% to 99% ECG within 10 minutes of all cardiac patients.

Conclusion

Prolonged Door-to-ECG time is associated with increased Door-to-Balloon time. Thus to decrease mortality and to increase the life span of STEMI patients, ECG within 10 minutes is immensely important. Like our Hospital achieved above the benchmark, other hospitals and organizations can also achieve this benchmark by adapting Door-to-ECG time and save the crucial life of STEMI patients and undesirable outcomes.

Improve Labor Room Midwives Competency in Neonatal Resuscitation Program (NRP)

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Introduction

“Birth asphyxia accounts for nearly 1 million neonatal deaths each year worldwide” (World Health Organization, 1995). If doctors and midwives in delivery rooms have appropriate neonatal resuscitation skills, they could save most of the babies’ lives. Neonatal resuscitation is indeed a very essential skill in maternal and child health.

Due to Lack of Nursing Competency in Neonatal Resuscitation Program (NRP), we faced problem in transfer of responsibility of baby receiving from Pediatric doctor to Labor room midwives.

Method

Multiple NRP Training Sessions Organized. Multiple NRP drills organized on mannequin and babies born in Labor Room. Education Material (Algorithm) Pasted in Labor Room. Change the responsibility of baby receiving from Pediatric doctors to Nursing. Design and conduct post training evaluation test of all midwives. Spot check, round to assess the practices. Make schedule to conduct regular NRP drills for midwives and doctors

Results

Trained all 16 midwives of labor room and shifted the responsibility of baby receiving from pediatric doctors to Nursing from May 2017. After 4 months of intensive training and drills, labor room midwives are receiving babies born from uneventful spontaneous vaginal delivery and we successfully transfer the responsibility of receiving babies in labor room from pediatric doctors to midwives.

Conclusion

If doctors and midwives in delivery rooms have appropriate neonatal resuscitation skills, they could save most of the babies' lives. Neonatal resuscitation is essential skill in maternal and child health.

Integrating Gender to Improve Maternal and Child Health in Afghanistan: The HEMAYAT Project's Approach

Nilofar Sultani, Gender Advisor of HEMAYAT Project

Introduction

The integration of gender-responsive approaches is core to the HEMAYAT project's work with government to address three delays that endanger maternal and child health. To help counter these delays, HEMAYAT co-created tools with government partners to institutionalize a gender lens within strategies, protocols and activities. These efforts help address gender barriers that deter access to and use of life-saving services.

Objective:

To strengthen MoPH's stewardship of gender-responsive family planning, maternal, newborn and child health programs.

Methods

HEMAYAT provides technical assistance with policies and guidelines to the Gender Directorate to improve gender integration in services.

Results

HEMAYAT supported MoPH to produce the following tools:

- Gender Integration Checklist for systematic review and revision of MoPH FP/MNCH learning materials and of policy documents
- Gender and Health training package and facilitator guide
- Gender Action Plan for Implementers of the Basic Package of Health Services in cooperation with the Grants and Contracts Management Unit (GCMU).

As a result, MoPH achieved gender integration milestones including:

- Strengthening capacity of 443 health care providers in gender using the gender and health training package
- Disseminating material for the ongoing promotion of gender integration, including a pictorial patients' charter, radio and video productions, and job aids
- Deploying seven gender empowerment text messages targeting 800 community and providers
- Supporting GCMU to integrate indicators from BPHS gender action plans into standard monitoring tools
- Reviewing and proposing revisions to six MoPH policy documents applying the gender integration checklist

Conclusions

- Addressing gender barriers in the access to and use of health facilities and services is imperative in implementing a FP/MNCH project.
- Co-creating tools with government partners can improve gender integration in activities and services to enhance maternal and child health.
- Dedicating time and effort to help government partners institutionalize tools is key to ensure gender integration is sustained after the project's end.

Keywords

Gender Integration, Gender and Health

Investigation of Chickenpox Outbreak in Dara-E-Peach District, Kunar-Afghanistan- April 2019

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Introduction

Annually 4 million people were diagnosed with chickenpox worldwide. The outbreaks are common in Afghanistan. In 2018, the Kunar surveillance system, investigated two chickenpox outbreaks with a total of 98 cases, one in a Madrassa and another in a school, at two different Districts of Kunar Province. All of them were clinically confirmed. Team investigated outbreak to treat cases, clinically confirm diagnosis, identify risk factors and make recommendation to prevent future Outbreaks.

Methods

On 28 April 2019, the Kunar PPHD received a report of suspected chickenpox outbreak from Kandagal boy's high school of Dara-e-peach District, though the official letter of Educational directorate of Kunar Province. Initially they reported 20 students were suffering from suspected chickenpox cases. A clinical chickenpox case was defined as any student or teacher, who studying in Kandagal boy's high school, developed acute onset of diffuse (generalized) macula-papulovesicular rash without other apparent cause, since 10th April, 2019. We conducted a descriptive study. All the Students and administrative staff of the school were screened and 65 (6.8%) chickenpox cases were identified only males. Reviewed medical records by retrospect wise in health facilities and surveyed the affected school for active case finding, personal, environmental hygiene and nutrition status. Ill students were interviewed and screened and data collected using of chicken pox -based questionnaire.

Results

No case died. The mean age of ill students was 9.75 years, median 9 years, mode 9 years and range 7-22 years. The common signs and symptoms were fever, generalize skin rash (papule) and itching. The weather was rainy, personal and environmental hygiene of the residents was poor, as well as the students seem malnourished.

Conclusion

The outbreak investigation identified malnourished students with inappropriate personal and environmental hygiene along poor living status facilitated the outbreak. Therefore, a multi-pronged approach is needed to improve the status and focus should be given to health education in mention area.

Keywords

Chickenpox, outbreak, Kunar, hygiene

Lactated Ringer's Solution Versus 0.9% Normal Saline (Ns) for Fluid Resuscitation in Acute Setting

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Introduction

In the acute medicine, fluid therapy is a common intervention and first priority in most of the critical patients. The choice of fluid for resuscitation is discussed in this review.

Objective:

To compare crystalloid fluid solution for fluid resuscitation, Lactated Ringer's solution or normal saline.

Methods

Google scholar was searched from 2015 to 2019 for the recent literature and studies.

Results

Total eighty studies were reviewed. Forty-seven out of eighty studies were in favor of lactated Ringer's solution where eighteen of them were retrospective and twenty-nine were prospective, and twenty-five studies were against the use of lactated Ringer and they prefer normal saline, and eight studies showed no significant differences or benefits between them.

Conclusion

The recent literature indicates that Lactated Ringer's solution may be significantly more effective and better fluid for resuscitation as compared to normal saline. Lactated Ringer's solution appears to be unsuitable for patients at risk for brain edema and for those with overt or latent chloride-deficiency. Finally, in pediatrics there is a need for new fluids to be developed on the basis of a better understanding of the physiology and to be tested in well-designed trials.

Keywords

Crystalloid solutions, intravenous infusions, lactated Ringer's, 0.9% saline, metabolic acidosis, emergency medicine, critical care, resuscitation, survival

Late Presenting Congenital Diaphragmatic Hernia Simulating Pneumothorax: A Case Report

Dr. Reshadullah Jurat, Dr. Tareq Rahimi

Introduction

Congenital diaphragmatic hernia (CDH) is generally regarded as a neonatal emergency. There is, however, a small subset of patients, comprising 5–20% of all cases of CDH, who present beyond the neonatal period.¹

The late presenting CDH poses considerable diagnostic challenges often leading to misdiagnosis and risk of thoracocentesis. The possibility of late presenting CDH should be considered in unusual cases of pneumothorax, especially in the absence of trauma so that unnecessary procedures like chest tube drainage can be avoided. It occurs in about 1 in 3000 births. The most common defect is the posterolateral (Bochdalek) type.²

Case Presentation

We present a case of a 13 years old female who developed cough, fever and breathing difficulty for more than 2 weeks. There was no history of trauma or surgery and never was she hospitalized before. She had been in a good health before this.

With physical exam she had left sided decreased respiratory sounds with hyper resonance findings with percussion and oxygen saturation 95%. A chest x-ray in another hospital the same day was taken and was interpreted as left sided pneumothorax. Clinical symptoms led to incorrect diagnosis of pneumonia + pneumothorax.

Upon admission a chest tube was inserted. She had no clinical improvement so with the suspected diagnosis of a late presenting congenital diaphragmatic hernia an upper GI study was performed which showed herniated stomach to the left hemithorax.

The patient went to surgery and congenital postero-lateral (Bochdalek) diaphragmatic hernia was found, which contained stomach, small bowel, transverse colon and spleen. Postoperatively she did well and post-operative chest x-rays returned to normal.

Conclusion

Although rare, delayed presentation of CDH is a considerable diagnostic challenge and correct diagnosis and early treatment is significant. It is recommended that CDH should be considered in differential diagnosis of older children who present with unclear GI or respiratory problems and have a suspicious x-ray.

Low Immunization Coverage Causes Outbreaks: Analysis of Four Measles Outbreak in Kabul Province, 2018

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Introduction

WHO estimates that measles infects 30 million persons and 454,000 deaths annually worldwide. In Afghanistan 215 measles outbreaks reported in 2018. Descriptive epidemiology of reported outbreaks in Kabul and its linkage to vaccination coverage is not clear. This study aims to describe outbreaks in terms of time, place and persons and reflect immunization in affected areas.

Methods

We conducted a retrospective analysis of measles data, retrieved from national surveillance department existed in MoPH in 2018. We calculated attack rate, case fatality rate (CFR), vaccine coverage and described data in terms of time, place and persons. Rapid assessment was done to determine the immunization in affected areas. We used Excel and Epi info 7 for data management analysis.

Results

In 2018, four measles outbreaks were reported in Kabul province. These outbreaks contained 400 cases (50% female) of them 172 (43%) cases were confirmed, 20 (5%) probable and 208 (52%) suspected. Totally 269 (67%) were hospitalized and 2 died in the Dehsabz district. Outbreaks were reported from Shakardara, Dehsabz, Chahar Asiab and few other areas. The mean age is 3.8 years, the median age is 2 years with a range of <0 to 39 years and Standard deviation is 4.55. The majority of cases (280) were in age group of 0-4 years. Overall 257 (64%) cases received zero dose of measles vaccination while 44 (11%) received 1st dose and 99 (6%) received both doses. The vaccination

coverage was 15% in Chahar Asiab, 0% in Dehsabz and 67 % in Shakardara districts. CFR was 4.3%, attack rate was 59 per 100,000 Population.

Conclusion

Measles outbreaks affected rural districts Kabul province due to low immunization coverage. Ministry of public health should focus on feasible strategies to improve immunization coverage in Kabul province. Although 25% of the cases were vaccinated against measles but why they still have sign and symptoms, it required more investigation.

Keywords

Measles Outbreaks, Kabul, Immunization, CFR

MRSA Disseminated Infection with Multiple Abscesses After Tattooing in A Teenager: A Case Report

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Introduction

Methicillin-resistant Staphylococcus aureus (MRSA) infections are gaining more attention lately. Traditionally confined to medical institutions, a growing number of community-acquired cases are being diagnosed. Among the different forms of pathologic presentations, MRSA sepsis and pneumonia can be lethal. Only few costly antibiotics are currently efficient in treating these infections. It remains unclear, however, whether MRSA will expand the scope of their resistance thus causing further severe infections and posing growing challenges to the medical community

Case Presentation

Mohammad Moqem a 17-year-old previously healthy adolescent presented to the FMIC on 18/11/2018 with chief complaints of Back/Left flank pain, Fever, Chest pain, Shortness of breath, Right leg and left leg and thigh and left arm pain for 4 to 5 days and finally he lost ability to stand or walk and got bedridden. According to Past history 2months ago he tattooed his left arm in a local tattoo saloon, otherwise there was no history of significant illness and admission. For this illness the child received oral and IV medications including: Tramadol, Chymoral, Dexamethasone, Naproxen, Omeprazole and Diclofenac Sodium. There was no history of allergy to any medication. He was delivered at home and was receiving normal diet. He was partially vaccinated. He was 1st Child of the family, two other sibs including 1 boy and 1 girl were fine and healthy, Tuberculosis contact was positive and Parental consanguinity was Negative. Vital signs on arrival were: BP: 95/75, CRT>3sec, Temp: 37.6, PR: 117, RR: 25, SO2: 92%. Our initial impressions were: Sepsis (Disseminated Staphylococcal Infection), Cellulitis, Ascites, Pleural Effusion, Lower Respiratory Tract Infection, Osteomyelitis, DVT, Tuberculosis, CHF/ARF.

Considering above mentioned impressions appropriate laboratory investigations, Imaging studies and consultations were carried out. Final Diagnosis was Disseminated MRSA infection. The patient was treated with broad spectrum antibiotics including Meropenem, vancomycin, clindamycin, Metronidazole and supportive treatment. He was discharge after 21 days with stable condition with oral clindamycin and Linezolid.

Conclusion

Over the last few decades, the incidence of MRSA has been on the rise. Several factors, such as changing antibiotic regimens, co-morbidities and newer modalities, in patient management, play a major role in contributing to this rise. One of the aspects of this changing paradigm has been rise in the number of cases and the varying presentations of MRSA. This aspect is concerning given the challenges in managing MRSA infections. In this particular case, we believe that the patient developed disseminated MRSA infection secondary to skin disruption and the patient might have an immune deficiency disorder which predisposed him to disseminated staphylococcal infection. Disseminated MRSA infection is a serious condition in children and occasionally fatal therefore early recognition and proper treatment decrease the mortality and morbidity of disease.

Naturally Well Managed Case of Ectopic Pregnancy

Dr. Atifa Popal, Azada Hussain Ali

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Introduction

Ectopic pregnancy is any pregnancy that implants outside uterine cavity. Ectopic pregnancy is a major health problem and important cause of morbidity and mortality in women of reproductive age. Serious outcomes can occur when correct diagnosis is delayed. Clinical presentation of ectopic pregnancy is variable; thus every healthcare professional should be having a high threshold of suspicion in diagnosing ectopic pregnancy to avoid adverse outcomes. Even in the United Kingdom, 54% of deaths due to ectopic pregnancy have been attributed to sub-standard clinical care. This ratio can be much higher in Afghanistan because of lack of facilities as well as delayed or even undiagnosed gynecological emergencies like ectopic pregnancy.

Objective:

To present a naturally well managed case of undiagnosed ruptured ectopic pregnancy.

Case Presentation

The patient was a typical case of ruptured ectopic pregnancy and was in a state of shock with hemoglobin 8 g/dl at the time of presentation. She remained undiagnosed and was given empirical treatment until follow up. After 8 days, her hemoglobin raised to 10 g/dl without any intervention and her general condition improved but BHCG was 288 mIU/ml. After 3 days, without any treatment, her BHCG level fell further.

Conclusion

The patient's ectopic pregnancy was managed naturally, as evident by the clinical as well as laboratory investigations.

Nighedaasht: Improving Maternal Health Outcomes Through Digital Health Technology

Dr. Momina Muzammil

Aga Khan Development Network, Digital Health Resource Centre

Objective

To determine the **role** of an mHealth intervention program, Nighedaasht, in empowering Community Midwives (CMWs) and improving Maternal and Neonatal Child Health (MNCH) outcomes in rural settings.

Methods

The Nighedaasht mHealth application has been implemented in the following districts in northern Pakistan: Chitral (20 CMWs); Gilgit (8 CMWs); Hunza (3 CMWs); Nagar (5 CMWs); Ghizer (7 CMWs) and Astore (6 CMWs), in efforts to digitize the processes of the services provided by CMWs in inaccessible, rural areas. It aimed to strengthen referral systems and improve communication between CMWs and physicians.

Through the application, CMWs can register mothers and births; track pregnant women and deliver Antenatal Care (ANC) services in time; refer cases electronically to specialists; and seek case specific expert advice from physicians directly from the field. Nighedaasht empowers CMWs through its social franchising model, which allows them to earn an additional income through deliveries and distribution of family planning products. Furthermore, the embedded training videos allow professional capacity building of health workers and raise awareness among community members.

Results

From January 2018 to April 2019, there have been 1224 patient registrations in the application; 1075 patients have received antenatal care (88% compared to national average of 73%); 566 skilled health worker-assisted deliveries have taken place; 138 referrals have taken place and specialists have been asked for expert opinion on 50 instances in the field. Nighedaasht has been successfully integrated in the routine CMW processes in implementing areas.

Conclusion

Nighedaasht addresses health worker isolation in remote areas as a result of inadequate skill sets; insufficient training; inefficient paper-based systems; and a lack of communication between CMWs and physicians. Employing short-messaging-services, the application provides a novel solution to address communication and coordination barriers in rural settings. Nighedaasht aims to inform policymakers about the role that mHealth can play in enhancing provider-to-provider communication and remote client-to-provider communication in low-resource settings, and improving MNCH outcomes through digitization of health worker processes.

Occurrence of Adverse Drug Reaction among Drug Resistant Tuberculosis Patients in Afghanistan

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2. National TB Control Program, Ministry of Public Health, Afghanistan
3. Policy and Planning Advisor for Deputy Minister, MoPH, Kabul Afghanistan

Objective/s

To determine the Adverse drug reactions (ADRs) rate among TB patients enrolled as drug resistant TB and receive second line anti TB medicine in Afghanistan.

Methods

Patients registered as Drug resistant TB (DR-TB) in five Programmatic Management of Drug Resistant sites of the country during the year 2011 till end of 2018 were enrolled in the study. The patient's records were reviewed and their ADR occurrence was reported.

Results

From total 875 DR-TB cases enrolled for DR-TB treatment during the study period, 14 developed at least one adverse reaction which shows ADR occurrence of 1.6%. Among these cases, 5 (36%) reported deafness specially in the first six month of treatment. 5 (36%) reported depression or other psychiatric illness, while skin rashes were 2 (less than 0.2%) and one case was recorded with renal failure and one case with gynecomastia.

Conclusion

A high frequency of adverse drug reactions is one of the major challenges in the treatment of DR-TB. But in Afghanistan the ADR is recorded to be very too low (1.6%). This may be because of low knowledge of health professionals faced with TB patients or due to under reporting such cases, also low awareness of DR-TB patients also be considered for recording no complaints due to medicine adverse effects.

Pattern Valvular Involvement in Patients with Rheumatic Heart Disease at French Medical Institute for Mothers and Children

Dr Mohammad Sabir Safi, Consultant Cardiologist, FMIC

Introduction

Rheumatic Heart Disease (RHD) continues to be a major public health problem in Developing countries like Afghanistan. RHD is mainly a delayed sequel of Acute Rheumatic Fever (ARF) and is the most common cause of valvular heart disease in the world. RHD also results in severe complications such as Atrial Fibrillation, Infective Endocarditis and Stroke. Valvular involvement in RHD is an unexplored phenomenon in Afghani context? This study aims to determine patterns and the Associated factors of valvular involvements in patients suffering from RHD presenting at the cardiology Department of French Medical Institute for Mothers and Children (FMIC), Kabul, Afghanistan.

Methods

The study design adopted for this study is descriptive case series. The study sample comprises of the records of 130 patients out of 3800 who visited in and out patient departments of FMIC between January 2017 and December 2017, underwent echocardiography as per AHA /ACCA guidelines and ruled out to have RHD. The data was collected against a structure checklist and analyzed for descriptive and inferential analysis using Statistical Package for Social Science (SPSS) version 24.

Results

There were 52 (40%) males and 78 (60%) females in the study population, with (1.6: 1) female to Male ratio. Mean age of the study population was 40.55 years and the commonly affected age group was between 20 to 50 years. For valvular involvement, mix valvular involvement was higher (82.5%), mitral valve was the commonly affected valve, and mitral stenosis was the commonly affected lesion present in 81% of the patients' records followed by mitral regurgitation present in 73% of the patients' records in combination with other lesions and isolated. The least common lesion was aortic

stenosis. Pulmonary Hypertension (56%) was the most common complication found out in these records followed by Atrial Fibrillation and Heart Failure (19%) (16.9%) respectively.

Conclusion

RHD is a common cardiovascular problem in our country. Still a lot of cases of rheumatic fever remains undiagnosed and end up in RHD. Hospital based diagnosis and treatment is not sufficient, and we may have to face the burden of RHD in future even more than what we have now. Health policy makers and physicians should strive hard to establish screening program for rheumatic fever and RHD in an extensive way. Our study is first step in describing the patterns of valvular involvement and its associated factors in Afghan patients suffering with RHD.

Keywords

Rheumatic Heart Disease; Mitral Stenosis; Mitral Regurgitation; Aortic Stenosis; Aortic Regurgitation; Echocardiography. Pattern of RHD

Prevention of Maternal and New-Born Deaths Through Community Based High Impact Interventions (CB-HII) in Afghanistan

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Introduction

Almost half the women (48%) deliver without skilled providers. Hemorrhage is the main cause of maternal deaths and accounts for 56% of all maternal deaths. Prevention of postpartum hemorrhage at the facility by SBAs and at homebirth using misoprostol is highlighted in National RMNCAH Strategy (2016-2021). New-born Mortality Rate is estimated 22/1000 in the country. MoPH is committed to decrease NMR to 20/1000 by year 2020. Umbilical cord infection is one of the main causes of new-born deaths. Recent evidence suggests that chlorhexidine 7.1% gel for new-born umbilical cord care is safe and prevents cord infection. Recent evidence suggests that postpartum family planning is a life-saving intervention for women and their children. Family planning can avert more than 30% of maternal mortality and 10% of child mortality if births pace is more than 2 years.

Objectives

To increase access of high impact interventions for prevention of maternal and new-born mortality in the community.

Methods

MoPH with the support of USAID funded HEMAYAT project is bringing health care closer to women and new-borns by expanding the integrated package of community-based HIIs in five provinces. This package includes supporting the health posts and Community Health Workers (CHWs) to counsel women and their families on birth preparedness, complication readiness, provide advanced distribution of misoprostol for prevention of PPH, distribute chlorhexidine gel for new-born cord care, and provide postpartum family planning (PPFP) services. The capacity of CHWs in target geographical areas were developed to identify the pregnant women within their catchment area and conducted three home visits to provide the integrated package of services. They are also trained to keep the records in pictorial data forms and report on monthly basis during the CHW monthly meetings. Community health supervisors were trained to provide effective supervision.

Results

The CHWs were able to provide CB-HII services to 30,320 women. 100% in the catchment areas received, counselling on birth planning, use of misoprostol and Chlorhexidine as well as Postpartum Family Planning (PPFP). A total of 15,751 women received misoprostol and 6,479 (>41%) took misoprostol tablets. Chlorhexidine gel 7.1% were distributed to 16,448 women at eight months of their pregnancy and 13,986 new-borns received CHX gel. A total of 14,976 women were referred to health facilities for management of pregnancy complications and normal delivery.

Conclusion

Community based high impact interventions can be packaged and brings the health care services closer to women and children. The CBHII implemented through a CHW and will prevent the maternal and new-born mortality.

Proportion of and Factors Associated with Thyroid Dysfunction Among Individuals Coming to A Tertiary Care Facility in Kabul, Afghanistan

Dr. Naeem Lakanwall

Background

The thyroid gland, located just below the vocal cord on each side of and anterior to the trachea, is one of the main endocrine glands. Its normal weight is 15 to 20 grams in adults. The thyroid secretes two most important hormones, thyroxine and triiodothyronine, usually called T4 and T3, respectively. These hormones greatly increase the metabolic rate of the body. In addition to T3 and T4, the thyroid gland secretes calcitonin as well which is a significant hormone for calcium metabolism.

Objective

The aim of this study is to estimate the proportion of and to identify factors associated with thyroid dysfunction among individuals coming to a tertiary care facility in Kabul, Afghanistan.

Material and Methods

An analytical cross-sectional study design was conducted from July to Sep 2018. Blood samples were obtained, serum TSH levels were measured, and the patients were divided into three diagnostic categories according to their serum TSH concentrations. 1) Hypothyroidism 2) Hyperthyroidism 3) Normal thyroid

Results

A total of 127 individuals were part of the sample for the final analysis. Majority study participants (77%) were females. A large number of the participants (92%) did not have family history of thyroid dysfunction and majority of the female participants, (85%) were not pregnant in the last two years. Furthermore, a 98% participants, were non-smokers.

Conclusion

The findings of the current study showed a high prevalence of thyroid dysfunctions in individuals coming to FMIC for thyroid functions tests. The findings also indicated that aging and smoking are the factors associated with thyroid dysfunctions. Further studies are needed to find out the prevalence of and factors associated with thyroid dysfunctions.

Role of Community Health Workers and TB Patient Associations (Shuras) on TB Case Notification in the Balkh Province 2015-2018

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Introduction

Due to lack of knowledge and awareness of tuberculosis (TB), many people with TB symptoms do not seek out care. This delay in diagnosis and treatment increases the risk of TB transmission within communities, which leaves many people undiagnosed and increasing mortality rates. Awareness creation and community level case finding in rural areas is a national priority.

Methods

From 2015 to 2016, a total of 1,561 community health workers (CHWs) and 56 community health supervisors in the Balkh province were trained on conducting awareness raising events, identifying and referring presumptive TB patients (PTB), and observing TB treatment. In 2015 – 2018 regular awareness raising events were organized for communities and promoted through community gatherings, radio messages, and billboards. In addition to the CHWs, 150 associations (Shuras) consisting of TB patients who completed TB treatments, were created and trained to organize awareness raising events and conduct contact screening.

Results

In 2015, CHWs/Shuras referred 817 PTB, which is 5% the overall PTBs identified in the Balkh province, and 50 (6.1%) were diagnosed with a form of TB. The number of patients who were notified of their TB status due to CHWs/Shuras referral steady increased from year, starting in 2015 with 50 (5%), in 2016 with 156 (13%), in 2017 with 400 (16%) and ending in 2018 with 433 (21%) (See Table 1).

Conclusion

The contribution of CHWs and Shura Associations was essential in identifying and notifying TB patients. The use of CHWs and Shura Associations in community-based DOTS in other rural provinces is recommended.

Role of Contact Investigation on Isoniazid Preventive Therapy of Children Under 5 in Afghanistan

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Introduction

The National Tuberculosis program (NTP) of Afghanistan implemented the strategy of active household contact screening of all bacteriologically confirmed TB index cases since 2014. The aim of this abstract is to share the experience of contact screening in a routine program set up.

Intervention

NTP implemented the active contact screening countrywide, which included door to door screening of TB index case contacts. Those with sign and symptoms of TB were referred to DOTS centers for diagnosis. Children under five years of age without sign and symptoms of TB were started on Isoniazid Preventive Therapy (IPT).

Results

From the total of 449,322 contacts screened for TB between 2014 and 2018 89561(20%) were children under five years of age and 79784(89.1%) were able to started on IPT. The contact screening volume increased progressively and the IPT coverage was also increased parallel (Table1). The average IPT completion rate was 75%.

Conclusion

The IPT coverage is very high for children and the completion rate is also high as compared to the global report. The active contact screening is a good approach for IPT and IPT adherence.

Role of Genexpert Technology in Early Detection of Rifampicin Resistant Patients in Afghanistan

Dil Aqa Safi

Introduction

Elimination of tuberculosis (TB) is a major global health priority in Afghanistan. Multidrug-resistant tuberculosis (MDR-TB) poses enormous challenges to health systems due to the complexity of diagnosis and treatment. The current landscape for TB response underscores the urgent need for rapid diagnosis to control TB, especially in resource-limited settings.

In 2014, National TB Program (NTP) introduced GeneXpert technology in Afghanistan and installed one GeneXpert machine in Afghan-Japan hospital for detection of Rifampicin Resistant (RR) patients. In 2018, NTP, Challenge TB (CTB) and Global Fund (GF) installed 42 more GeneXpert machines in 25 provinces.

Methods

CTB assisted NTP to develop GeneXpert and sample transportation guidelines, assessment tool, posters and register. CTB / NTP conducted GeneXpert training for 70 laboratory technicians and 25 Provincial Laboratory Supervisors (PLS). CTB /NTP regularly supplied cartridge to all GeneXpert sites and conducted supportive supervisory visits to mentioned sites.

Results

As a result; in 2018 CTB GeneXpert sites performed 10690 tests, from those 9354(87 %) tests, there were new Bacteriologically conformed TB cases, detected 141 (1,5 %) RR cases and 1336 (13 %) tested were previously treated TB cases, tested and detected 131 (10 %) RR patents, so overall 272 (3 %) RR patents were detected in 27 GeneXpert sites in 15 CTB support provinces.

Conclusion

By smooth implementation of GeneXpert technology, we succeeded to detect more Rifampicin Resistant patients and put on treatments. We recommend expanding this technology to more sites and bring easy access to detect RR cases.

Sialolithiasis (Salivary Stones): A Case Report

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Introduction

Sialoliths or salivary calculi are calcified structure that develop within the ductal system of major or minor salivary glands. The stones are commonly composed of inorganic calcium and sodium phosphate salts. Salivary stones occur in men twice as often as in women. There is a peak incidence between 30 and 50 years of age and submandibular gland is most common site of involvement accounting to 80%. The objective of this paper is to present the rare clinical manifestation of a 45 years old male patient with is condition.

Methods

A 45 years old men was admitted to maxillofacial department of Stomatology Hospital with the complain of periodic painful swelling when eating, interspersed with period of remission. He was suffering from malformation, redness, tenderness and inflamed right side submandibular gland. Diagnosis is made by palpation in which the right side submandibular gland was painful and a flow of pus in addition sialo grapy help us in identifying the location of Salivary Calculi.

Results

Sailoliths was a rare case reported at Maxillofacial Department of Stomatology Hospital. The main etiology of the disease in the identified case was un known However, a neurohumoral condition, a nidus or matrix for stone formation or a metabolic mechanism are probable factors.

Conclusion

Sialoliths is rare case, the patient was observed by palpation and digital manipulation. Sialo grapy help us to find out the location of stone which was in intra glandular portion of right side submandibular duct. The sialodenectomy procedure was performed for this patient.

Sonography Is Considered the First-Line Diagnostic Imaging Method for Primary Abdominal Ectopic Pregnancy

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Introduction

Abdominal pregnancy, with a diagnosis of one per 10000 births, is an extremely rare and serious form of extra-uterine gestation [1]. Abdominal pregnancies account for almost 1% of ectopic pregnancies [2]. The gestational sac is implanted outside the uterus, ovaries, and fallopian tubes. The maternal mortality rate can be as high as 20% [3]. This is primarily because of the risk of massive hemorrhage from partial or total placental separation. It is thought that abdominal pregnancy is more common in developing countries, probably because of the high frequency of pelvic inflammatory disease in these areas [4].

Objective

Sonography is considered the first-line diagnostic imaging method for Primary abdominal ectopic pregnancy.

Methods

ULTRASOUND: Sonography is considered the first-line diagnostic imaging method, with magnetic resonance imaging (MRI) serving as an adjunct in cases when sonography is equivocal and in cases when the delineation of anatomic relationships may alter the surgical approach. We report the diagnosis of alive abdominal pregnancy at 16.4 weeks.

Case Presentation

Outside referral, 30-year-old Pakistani woman, gravida 1 para 0+0. She was referred to our hospital from a local clinic at the gestation stage of 16.4 weeks because of pain in the lower abdomen and slight vaginal bleeding. Transvaginal ultrasonographic scanning revealed an empty uterus with an endometrium 26.2 mm thick. A transabdominal ultrasound examination demonstrated an amount of free peritoneal fluid and the viable fetus at 16.4 weeks within a sac and placenta located anteriorly. Sac with fetus located above & slightly Right side of Empty Uterus [measurement 105.3 x 87.3 x 56.2 mm].

Laparotomy done & removed fetus with complete placenta & discharged at 3rd day with stable condition [Patient's Husband informed].

Conclusion

Ultrasound examination is the First diagnostic procedure of choice in this case.

MRI provided additional information for patients who needed precise diagnosing. After the diagnosis of abdominal pregnancy became definitive, it was essential to determine the localization of the placenta before any surgical intervention.

Standardized Childhood Tuberculosis Case Notification in Limited Source Setting: Experience of Afghanistan

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Background:

About 43% of Afghanistan population is children under 18 years and according the 2018 report of WHO, there were an estimated 7.5(4.3-11) thousand incident cases of Tuberculosis (TB) among children under 15 years of age. We are presenting the case notification trends of childhood TB in Afghanistan since 2014.

Intervention:

National TB program (NTP) with stakeholders developed standard operation procedure (SOP) for childhood TB diagnosis and trained doctors on the SOP in 2015. The NTP revised the guideline that in the absence of bacteriological confirmation, the health workers can use a combination of clinical, Tuberculin Skin Test (TST) and chest X-rays (CXRs) to diagnose TB. If the TST is above 10mm and/or CXR lesion suggestive of TB or history of contact with TB patient with signs and symptoms

suggestive of TB can be considered as a TB case. The NTP increased the access of X-rays in most hospitals and TST availability at district hospital and comprehensive health facilities.

Result:

the number of children diagnosed with TB increased from 4451 in 2014 to 10446 in 2018 (135% increase). The proportion of children out of all TB cases notified was 14% in 2014 and has reached 21.7% in 2018. The male to female ratio of children under 5 was almost 1:1 in all years [Table 1]

Conclusion:

According to the WHO estimate of childhood TB for 2017, the country has notified all childhood TB cases and there were no missed cases in the country. For the 2018, the target set for the country was 10,800 and 10,446(96.7%) were notified. In conclusion Afghanistan is not missing childhood TB cases as that of the adults whereby the missed cases reach 30% for those above 15 years old.

Table 1: All from TB case notification among children in Afghanistan (2014-2018)

Year	All form of TB Cases (New& Relapse)	TB Cases Among Children Under 15(%)	Child TB<15 Gender	
			Male	Female
2014	31746	4451(14)	2168	2283
2015	35878	4951(13.7%)	2537	2414
2016	41954	6365(15.1%)	3248	3117
2017	46640	9732(20.8%)	4806	4926
2018	48131	10446(21.7%)	5214	5232

Successful Anesthetic and PICU Management of Thalassemia Major Patient with Pancytopenia for Splenectomy - Case Report.

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Introduction

Thalassemia is a complex group of diseases that are relatively rare in the United States but common in Mediterranean regions and South and Southeast Asia. Worldwide, there are 350,000 births per year with serious hemoglobinopathies. In the United States, as a consequence of immigration patterns, occurrence of thalassemia disorders is increasing. The thalassemias are a group of inherited hematologic disorders caused by defects in the synthesis of one or more of the hemoglobin chains. Alpha thalassemia is caused by reduced or absent synthesis of alpha globin chains.1. HBA1 and HBA2. Beta thalassemia is caused by reduced or absent synthesis of beta globin chains. Splenectomy is indicated in the transfusion-dependent patient when hypersplenism increases blood transfusion requirement and prevents adequate control of body iron with chelation therapy. An enlarged spleen without an associated increase in transfusion requirement is not necessarily an indication for surgery. Patients with hypersplenism may have moderate to enormous splenomegaly, and some degree of neutropenia or thrombocytopenia may be present. The aim of this study is to introduce successful Anesthetic and PICU management of thalassemia Major patient with pancytopenia for splenectomy. That was associated with sever thrombocytopenia and high risk of bleeding tendency and mortality rate.

Methods

A case report study of thalassemia major associate with pancytopenia. That is first time at FMIC with platelet count 31000, Hb level about 8mgr/dl and WBC count of 3000.

Case Presentation

5yr old male child that was suffer from Thalassemia major disease since birth which was complicated with several time per year blood transfusion and hypersplenism.1 month before surgery the patient Hb level was 4.6 mg/dl, WBC count 2.700 and platelet count of 58000.He received vaccination and blood transfusion, then he was planned for splenectomy. After 1 month he was admitted for splenectomy his Hb level was 4.9mg/dl, WBC 2.400 and platelet level count of 3.6000.He received several time blood and platelet transfusion before surgery. Finally, he was operated for open splenectomy with Hb level of 8mg/dl and platelet level of 31000.He received platelet and blood transfusion in post-operative period also then after 2 days of post-operative period his Hb level increased to 11.8mg/dl, WBC count of 17.600 and platelet level of 145000.

Conclusion

Anesthetic and critical management of pancytopenia patient with hypersplenism is possible with repeated blood and platelet transfusion for splenectomy due to thalassemia major at FMIC and Afghanistan for the first time that is a big achievement for all entire medical and paramedical staff and institution.

Keywords

Thalassemia major, splenectomy, Pancytopenia, Thrombocytopenia, Bleeding tendency, High mortality rate.

Swyer James Syndrome

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Introduction

Swyer–James syndrome (SJS) is a rare lung disorder found by English chest physician William Mathieson Macleod, and (simultaneously) by physician Paul Robert Swyer and radiologist George James in the 1950s in Canada.

Swyer–James syndrome is a manifestation of postinfectious obliterative bronchiolitis typically follows a viral respiratory infection such as adenoviruses or Mycoplasma pneumoniae infection in infancy or early childhood.

In SJS, the involved lung or portion of the lung does not grow normally and is slightly smaller than the opposite lung. The characteristic radiographic appearance is that of pulmonary hyperlucency, caused by over distention of the alveoli in conjunction with diminished arterial flow.

Objective:

To report the first diagnosed case of SJS in FMIC.

Case Presentation

This paper is a case report of a 3.5-year -old male patient weighing 10.3kg who had history of repeated admission in different hospitals due to repeated episodes of cough, fever and respiratory distress.

The patient was admitted as a case of pneumonia. The routine blood tests done which were normal. Chest X-ray showed bilateral infiltrations with normal cardiac size. Treatment started according to the hospital protocol for pneumonia. Patient had no improvement. 2nd chest X-ray was worse.

Chest-CT advised which revealed left lung was smaller compared to right side. volume loss of the left lung and hyperlucency of the left lung upper lobe was noted.

The patient's clinical background and chest CT report is compatible with the diagnosis of SJS which was the 1st diagnosed case in FMIC.

Conclusion

In poor resource countries the case of SJS always treated as a case lower respiratory tract infection or bronchial asthma. Chest CT scan is crucial diagnostic test for confirmation of SJS.

Time from Symptom Onset to the Initiation of Treatment for Tuberculosis Patients in Afghanistan in 2015

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Introduction

Afghanistan is home for 60,000 new TB patients in a year. National Tuberculosis program (NTP) notified 62% of estimated TB cases in 2015. Further, there has not been any study to show the time interval from onset of TB symptom till diagnosis and treatment in Afghanistan. The aim of this study was to identify the time interval from symptoms till diagnosis.

Methods

This was a cross sectional study used a random cluster sampling of health facilities from 12 provinces that represents factors like security, culture and geographic location. The study team reviewed records of TB patients that were diagnosed and registered at public and private health facilities in 2015. Researchers collected data from TB register of health facilities.

Results

During October -December 2016, 3,221 patients diagnosed and TB treatment initiated and found that 30% of TB patients remained symptomatic until five months, 12% diagnosed in less than one month, 14% diagnosed at one and two months and for 10% it took three months till treatment initiation (Graph-1). Briefly, 26% of patients diagnosed in less than one month, 50% till three months, 60% until five months and rests diagnosed afterwards. Further, 42% male and 36% female TB patients diagnosed till two months and 30% male and 35.3% female diagnosed after five months. Also, there was no difference in time interval from symptoms onset until diagnosis of pulmonary and extra pulmonary TB patients.

Conclusion

Among study subjects, there was an unacceptably delay from onset of symptoms and treatment initiation and female patients stayed symptomatic longer compared male patients. Also, there was no difference in delay of symptoms onset till diagnosis/treatment between pulmonary and extra pulmonary TB patients. Thus, we recommend triage for presumptive TB patients and differential diagnosis of TB among symptomatic clients at public and private facilities.z

The Current Status of WASH, Its Effect on Health and Analysis of Biological Contamination of Drinking Water in a Village in UP, India

Dr. Najeeb Ullah

Introduction

The access to safe, adequate amount per person per day and availability of Water with in premises, access to proper Sanitation and good Hygiene is the basic right of Human being. The objective of this study to find the current status of wash in a village, UP, India.

Methods

In this cross-sectional study sample of 202 household selected from a village, UP, India. Sample selected through international standard formula and technique applied multistage random sampling; questionnaire filled by researcher by asking respondent. The data analyzed through SPSS version 20.

Result

All the household had primary source of drinking water tube well or bore well. Most household had access to basic Indian type toilet except 14 (6.9%) household, which were practicing open defecation. Hygiene status was not satisfactory; the people were unaware about the importance of hygiene resulted in different type of skin infection. The effect of WASH on health was prominent the response about chronic fever and diarrhea was positive in most cases, the biological contamination of drinking water was positive for primary source in 65 while 41 were negative out of 106 total sample.

Conclusion

According to the situation which was present in the village the literacy rate was low due to which the awareness of people about the importance of WASH in spreading diseases was low. The recommendation is to work on the awareness about WASH in the village.

Keywords

WASH, Health, Biological contamination, Hydrogen Sulphide Strips and Kherli Bhav Mozampur village.

The First Successful Lower Limb Replantation in Afghanistan

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Objective

Use of Microsurgery Principles in Complex operations of Plastic and Reconstructive Surgery at Important Injured anatomical structures in order to Replantation of total or partial Amputated segment.

Methods

We present the first successful lower limb total replantation in Afghanistan on a 35 -year-old man who had lower limb total amputated segment by crash Injury came up as emergency case at 2015 in Hamkar Surgical Hospital. We have made good recovery with less functional deficit after operation.

Now after 4 years follow- up the patient has a normal gait and has integrated into society with limited functional deficit at ankle joint.

Results

Replantation of the lower extremity has controversial indications but nevertheless it may be considered in carefully selected patients who present early and are expected to show good functional recoveries.

In our case we used the microsurgery principles in adequate time and high experience techniques of microsurgery and plastic-remonstrative surgery aim us to successfully recovery the total amputated segment.

Conclusion

The real success of replantation is not only the success of operation but the patient is able to remain without the use of orthopedic prosthesis in his/her life as well. Considering the functional outcome of our case replantation should be attempted whenever possible and feasible even in children and adult patients without orthopedic prosthesis in society.

The Prevalence of Post-Traumatic Stress Disorder Symptoms among Afghan Soldiers in Sardar Mohammad Dawood Khan National Military Hospital

Sayed Hussain Hussaini Sajjad; Razia Mohammadi, Sediqa Akbari

Introduction

Post-Traumatic Stress Disorder is one of the most prevalent mental illness among combatants. Present study is conducted to determine the prevalence of Post-Traumatic Stress Disorder symptoms among soldiers who were hospitalized in Army hospital because of physical injuries.

Methods

This is a descriptive study conducted in Sardar Mohammad Dawood Khan National Military Hospital. Soldiers who were hospitalized in this hospital because of physical injuries were included in this study.

All participants fulfill Impact of Events Scale-Revised (IES-R). For data analysis we used SPSS version 19.

Results

Results showed that 69.8% of participants were reported Post-Traumatic Stress Disorder symptoms seriously. Comparing mean of three subscales show that intrusive thoughts has the highest mean. The results of Multiple Regression between Socio- demographic variables and three subscales showed that there is a positive relationship between hyper arousal subscale and duration of injuries.

Conclusion

This study highlights the needs of prevention and psychological cares among afghan soldiers. Early preparation and training soldiers to manage stressor in war can improve the level mental health.

Keywords

Post-Traumatic Stress Disorder; War; Afghanistan; Prevalence; Soldier

The Role of Continuing Education in Improving Patient Outcomes and Health Workers' Performance in Afghanistan

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Introduction

Decades of war, conflict and security uncertainties have depleted the quality of care, technical and operational capacity of government institutions to train health workers to strengthen the health system in Afghanistan. Building institutional capacity of healthcare organizations is therefore vital to fulfill its functions, especially related to management of maternity health care services. The Academic Project of Afghanistan Aga Khan University (APA-AKU) has been supporting the two-year diploma midwifery education programs at Ghazanfar Institutes of Health Sciences (GIHS) since 2002, and also helping some of existing government health facilities and maternity hospitals in directly where students participating their practical work.

Objective:

To strengthen and standardize midwifery education program at GIHS, improve pre and in service training and produce competent and compassionate midwives who can provide quality and appropriate maternity service to the people of Afghanistan.

Methods

Different methodologies were used to support the programs, which includes providing programmatic support to pre and in-service institutions for producing competent midwives and continuing faculty capacity building initiatives for enabling them to conduct midwifery education in accordance with the international standards. In addition to this, the project also focused on improving existing clinical teaching areas to support technical knowledge with appropriate learning tools and organizing clinical education training for clinical preceptors and hospital staff to improve their knowledge, skill and comfort related to clinical teaching.

Results

During 2013-2018, APA-AKU project covered three major maternity teaching hospitals in Kabul that included Malalai Hospital, Rabia Balkhi Hospital and Khair Khana Hospital. In baseline and both Non-binding and Binding assessments show that the three hospitals in clinical area -2 (clinical instruction and practice) improved from 61 % (baseline) in 2013 to 90 % in 2018. The same three hospitals in clinical area -5 (clinical area where student midwives undertake clinical experience) improved from 36 % (baseline) in 2013 to 98 % in 2018.

Conclusion

The above mentioned approach to strengthen midwifery education programs in Afghanistan has not only enhanced the status of midwifery profession in the country but also ensured high value quality maternity care through competent midwives. It has also significantly contributed in reducing maternal and infant mortality rates in Afghanistan.

Keywords

Strengthen, Competent, Improve, Practical, quality maternity service, Performance

To Evaluate the Clinical and Biochemical Features and Etiological Classification of Children with Hyperphenylalaninemia– A Quest to Save Our Generations from Intellectual Disability

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Objective

To assess the clinical and biochemical features, outcomes and etiological classification of patients diagnosed to have Hyperphenylalaninemia (HPA).

Methodology

A descriptive cross sectional study was performed by the Department of Pathology & Laboratory Medicine and Pediatrics & Child Health, AKU. Plasma Amino acid (PAA) was analyzed at Biochemical Genetic Laboratory (BGL) from January 2013 to February 2017 with Phenylalanine (Phe) levels > 120 umol/L were reviewed by a chemical pathologist and a metabolic physician. Medical charts of patients registered at metabolic clinics were reviewed, while outside referrals were contacted by telephone to collect data on a pre-structured questionnaire. Statistical Package for Social Sciences (SPSS) version 21 was used for analysis.

Results

During the 5 years 3057 patients were tested for PAA, out of those 34 with Phe levels >120 umol/l were included in this study initially. Twelve patients showing PAA pattern consistent with liver disease and patients with only mild elevation of plasma Phe >120 umol/l but <240 umol/L were excluded. Eighteen patients were included in the final analysis. 4 (22%) had expired. Median Phe levels were 1280 (IQR: 935) umol/L and median age of patients was 606 days (IQR: 761) with 72% being males (n= 13). Phenylalanine hydroxylase deficiency was present in 5 patients while 3 patients had defects in the metabolism or regeneration of tetrahydrobiopterin. The most common clinical features were intellectual deficit (n=14) and seizures (n=14), followed by lighter hair color (n=10) and hypotonia (n=11). High treatment cost (n=7) was the leading reason for cessation of therapy followed by non-acceptability by patient's family (n=5).

Conclusion

In Pakistan most cases of HPA are diagnosed late when intellectual disability has already developed. This can be prevented by adequate availability of diagnostic facilities and early intervention which has to be sustainable.

Treatment of Ankylosed Elbow in A Child Patient with Interpositional Arthroplasty from Fascia Lata for Mobility: A Case Report

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Introduction

The elbow is a complex joint with complex biomechanics, basically a hinge joint between ulna and humerus with pivot articulations between radius and ulna. It's range of Motion (ROM) in flexion is 0-145°, (but most of the daily work can be done by 30-130°) with supination - pronation of 80°, thus Elbow motion is crucial to upper limb movement that loss of 50% of elbow function equals to loss of 80% of upper extremity global function.

Losing the elbow joint function by any reason is not acceptable by the patient, and restoring the movement and stability in this joint is also challenging to the treating surgeon.

Total elbow arthroplasty (TEA) is a viable option in rheumatoid arthritis, ankyloses, cases of failed fixation, bone loss in distal humerus fractures and stiff elbow, unlike other arthroplasties (hip and knee), TEA is not the primary treatment, interpositional arthroplasty (IPA) could be considered a viable option for post-traumatic arthritis in young patients. There are many types of arthroplasties each with its own pros and cons.

Case presentation

We report a case of Interpositional (IPA) done in a 14-year-old child with left ankylosed elbow secondary to post-osteomyelitis event, the elbow was fixed at 20° flexion, supination and pronation 85-90°. Considering the patient's age, high functional demand, and time-related longevity of TEA, we planned for IPA.

Surgical Consideration

Through posterior approach by V-Y plasty of triceps muscle, the elbow joint was exposed, the articular surfaces were prepared in a smooth surface figure with near complete range of movement by removing fibrous ankylosis. Meanwhile, through lateral incision over Mid-Thigh, tensor fascia lata graft of 12 cm × 5 cm was harvested. The graft was secured with vicryl through the drill holes made over the humerus.

Intraoperatively we obtained a range of motion 15-110° wound closed in layers over drain. Postoperatively elbow immobilized in 90° with a splint which was removed intermittently with elbow range of motion exercises advised up to pain tolerated by the patient. Strengthening exercises were delayed. At the end of 4 weeks, the patient had elbow range of 30-100° with good elbow stability.

Conclusion

IPA is a viable treatment option in young patients with post-traumatic arthritis, however elbow instability, fascia rupture, thigh pain, and hernia are the problems of IPA. IPA to TEA transition is possible.

Keywords

Interpositional Arthroplasty

Typhoid Fever Outbreak in Payenda Mohammad Village, Khan Aabad District, Kunduz Province, Afghanistan April – May, 2019

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Introduction

Typhoid fever is a water-borne disease which is common in Afghanistan and its outbreaks are recorded frequently in Afghanistan. Many outbreaks have been investigated while, mostly, they are not clearly described and sources are not identified. An outbreak of typhoid fever investigated to identify the source and associated risk factors of effective control and prevention.

Methods

On 29 April 2019, an increase of suspected Typhoid fever cases reported from Payenda Mohammad village with a population of 2100 individuals in Khan Abad district by a health worker. We defined a suspected Typhoid case as resident of Payenda Mohammad village having fever, diarrhea, vomiting, constipation, headache, stomachache with onset of fever in last 14 days. We identified all cases through health facility records and rapid household survey. We collected blood specimens and water samples of for laboratory testing and analysis. We described data epidemiologically.

Results

A cluster of 79 cases were found in the village; attack rate was calculated (37.6/1000); mean age was 27.4, ranged between 3-74years old. The ratio proportion of female to male was is 1.3:1, with age range 3 -74 years old. Of 46 collected specimens' samples tested 100% confirmed by laboratory and water samples reported positive for salmonella typhoid by Central Public Health Laboratory (CPHL) in Kabul. Relative risk [RR] compared who drank and not drank lake water calculated was 3.47 (95% CI 1.99, 6.06), while [RR] compared who drank and not drank well water was 0.38 RR=0.38 (95% CI 0.25, 0.60). Data shows drinking from lake water was the source of outbreak.

Conclusion

Using the lake water caused the outbreak. Interpersonal health education and supply of chlorine tablets helped in control. Health education and public awareness is recommended. We recommended regular monitoring of water supply should be monitored regularly. A campaign in this context is being planned by district level. Improved drinking water should be provided to the community.

