

847 AN EPIDEMIOLOGICAL STUDY TO ASSESS THE PREVALENCE OF PKDL IN PEDIATRIC AGE GROUP IN ENDEMIC AREAS OF BIHAR

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Post Kala-azar Dermal Leishmaniasis (PKDL) is a dermatosis usually occurs as a sequel of Visceral Leishmaniasis (VL), commonly known as kala-azar (KA), caused by *L. donovani* (L.d.) and characterized by macular, maculo-papular and nodular skin lesion on the whole body surface. It is of considerable epidemiological importance particularly in India because it acts as reservoir for transmission of parasite through sandflies. In India, it appears after a long period, usually 1–2 years or more, in 5–10% of VL cases, but it may also occur without manifestation of VL.

Emphasis on PKDL reporting, the prevalence of PKDL cases is not much clear. Objective to assess prevalence of PKDL in Children in endemic community of Bihar, survey was carried out in a Rukhai village of Chandi PHC, regular occurrences of VL cases and PKDL have been reported. Out of 223 individuals (52% male, 48% female), 41 had past history of VL occurred during 2001 to 2007, 40 cases were treated with recommended dosage of Sodium Antimony Gluconate and only one case Miltefosine; and all were cured. A total of 11 individuals (male-5, female-6) were identified as PKDL cases. Out of 23,915 populations from 4323 households, 12 PKDL cases (Male 5, Female 7) were detected. Out of 12, 9 had past history of VL.

Less than 1 VL case per 10,000 population at sub-district level under KA elimination programme, the estimated prevalence of PKDL, is a matter of concern for policy planners.

848 CLINICAL, BIOCHEMICAL AND ETIOLOGICAL PROFILE OF FULMINANT HEPATIC FAILURE OF VIRAL ETIOLOGY IN CHILDREN

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Viral Hepatitis is a major health problem endemic in many parts of the world. Fulminant hepatic failure is a rare condition that occurs in only 1% of patients hospitalised with an acute viral hepatitis. There is a paucity of literature describing spectrum of fulminant hepatic failure in children in India.

Objective To study the clinical, biochemical and etiological profile of fulminant hepatic failure (FHF) of viral etiology in children.

Methods The study was conducted in 30 children aged group between 1–15 years admitted with FHF of proven viral etiology in Dayanand Medical College and Hospital, Ludhiana. A detailed clinical evaluation including history, physical signs, staging of hepatic encephalopathy with relevant investigations and viral markers were entered in a pretested proforma.

Results Twenty nine patients (96.7%) had enterically transmitted hepatitis. Viral markers for HAV alone was positive in 20 patients (66.67%) and in combination were positive in 28 patients (93.3%), HEV in 7 patients (23.3%) and HBV in 5 patients (16.7%). Eight patients had mixed viral infections. The clinical features included fever and jaundice (100%), anorexia (83.3%), vomiting (76.7%), nausea (73.3%). Complications seen were cerebral edema (53.3%), decreased urine output (30%), GI bleeding (16.6%) and septicaemia (16.6%). The overall survival rate of FHF was seen to be 73.3%.

Conclusions HAV was found to be the commonest viral infection causing FHF either alone or in combination with others. Importance of vaccination of children with Hepatitis A and Hepatitis B vaccine and improvement in sanitation in prevention of FHF cannot be overemphasised.

849 COMPLICATED URINARY TRACT INFECTION IN NEONATES

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Obstructive uropathies present changes in anatomy and function of urinary tract. They are usually discovered during the examination of urinary tract infection.

Aim of study To present the most frequent causes in the most frequent types of obstructive uropathies in neonates.

Materials and Methods In our study, 38 neonates were included and they were diagnosed in the Pediatric Clinic during the period of time 2010/2011. They were diagnosed by bacteriological examination of urine, renal ultrasonography, and radiologic examination such as voiding cystourethrogram and excretory urogram.

Results of study From 38 neonates, 52.24% were males and 47.76% were females. Vesicoureteral reflux (VUR) is the most common obstructive uropathy in this age and is present in 75% of all cases. Megaureter is present in 25% of cases and posterior urethral valves are present in 12.5% of cases. Results of bacteriological examination show that VUR is connected with *Klebsiella pneumoniae* in 65.1% of cases, while with *E. coli* in 34% of the cases. At megaureter the most frequent cause of infection was *Klebsiella pneumoniae* in 68.1%, while *E. coli* in 38.2% of cases. At posterior urethral valves, *E. coli* was the most frequent cause of infection in 56.3% of the cases. *Klebsiella pn.* was present in 16.7% of the cases and *Proteus spp.* was isolated in 25% of cases.

Conclusion According to the results of the study, it can be concluded that the most frequent cause of urinary tract infection at obstructive uropathies is *Klebsiella pneumoniae*.

850 URINARY TRACT INFECTIONS IN CHILDREN IN JORDAN: THE MICROBIAL PATTERN AND RESISTANCE TO ANTIBIOTICS

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Objectives

1. To study the pattern of pathogens causing UTI in children in Jordan.
2. To study the frequency of *E. coli* resistance to antibiotics.

Settings and method A prospective study of all cases of UTI presented to our pediatric department both in-patient and out-patient over two years (2010 and 2011). Studying the age and sex, the causative pathogens and their sensitivity and resistance to antibiotics. RESULTS: Age: Under 1 year of age 26 cases (21%), 1–5 years :51 cases (42%). Above 5 years: 37 cases (32%).

Sex Females 94 cases (82%), Males 20 cases (18%). The ratio of 4.7:1. The total number of cases was 114 including: 79 cases of *E. coli* (64%), 29 cases of *Klebsiella sp.* (23%), 7 cases of *Enterobacter sp.* (6%), 5 cases of *Proteus sp.* (4%), 2 cases of *Staphylococcus aureus* (2%) and 1 case of *Pseudomonas sp.* (1%).

The following antibiotics were administered according to the sensitivity of *E. coli* and other factors:

Amikacin in 29 cases (36%), Cefixim 27 cases (34%), Amoxy-clav. 13 cases (17%).

Cephtriaxone 4 cases (5%), Cefpodoxime 3 cases (4%), Cefuroxime 3 cases (4%).

Conclusion UTIs are more common in girls and in toddlers.

E. coli is the commonest organism causing UTI followed by *Klebsiella sp.*

*Parenteral Amikacin was the drug of choice in about one third of cases of UTIs caused by *E. coli* which were resistant to the previously used antibiotics.

*Cefixim is the best oral antibiotic followed by Amoxy-clav.

851 RISK FACTORS ASSOCIATED WITH LIFE THREATENING INFECTIONS IN CHILDREN WITH FEBRILE NEUTROPENIA A DATA MINING APPROACH

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Purpose To determine risk factors(RF) and their relationship with life threatening infection (LTI) in children with febrile neutropenia (FN).

Method In this cross-sectional study, from December 2008 to November 2009, all children with FN admitted to Dr Sheikh Pediatric Hospital were enrolled. For each patient, demographic, clinical and laboratory data were recorded and they were followed up for occurrence of LTI.

Results 120 episodes of FN in 68 patients were analyzed. The most common underlying disease was Acute Lymphoblastic Leukemia (ALL) (53.3%), 9 (7.5%) died from an infection and 35 patients (29.1%) had a LTI. Five variables were identified as risk factors for LTI i.e. body temperature $\geq 39^{\circ}\text{C}$ ($p=0.000$), presence of mucositis ($p=0.000$), abnormal chest x-ray ($p=0.001$), platelet count less than $20000/\text{mm}^3$ ($p=0.000$) and absolute neutrophil count less than $100/\text{mm}^3$ ($p=0.001$).

Risk of LTI was increasing according to number of RFs presented at the beginning of admission (from 2.8% in patients without RF to 100% in patients with 5 RF).

Data mining analysis showed relationship between risk factors with platelet count as the most important variable in the high risk group for LTI.

Conclusion Evaluation of important RFs and judging the severity of patients' condition by studying the importance and relationship between RF at the time of admission can be a useful method for screening LTI in children with FN.

852 RISK FACTORS FOR CORONARY ARTERY LESIONS IN KAWASAKI DISEASE

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Introduction Kawasaki disease (KD) is an acute self-limited vasculitis that can become fatal if left untreated. The aim of this study was to identify the risk factors associated with the development of coronary artery lesions (CAL) in pediatric patients with KD.

Methods We performed a retrospective chart review of pediatric patients diagnosed with KD who were admitted to King Abdulaziz University Hospital, Jeddah between January 2001 and December 2011. Descriptive statistics was performed using the Statistical Package for the Social Sciences.

Results Forty-four patients were diagnosed with KD. There were 27 (61.4%) boys and 17 (38.6%) girls. The mean age of the patients was 26.7 months (range 1.5–108 months). Twenty-three patients (52.3%) had complete Kawasaki, while 21 (47.7%) had incomplete KD. CAL were found in 16 patients (61.5%) with incomplete KD and in 10 (38.5%) with complete Kawasaki ($p=0.05$). CAL were more frequent in males ($p=0.045$), in the 1–5 year age group ($p=0.045$), in children with fever of more than 5 days ($p=0.01$) and in children who received intravenous immunoglobulin (IVIG) 10

days after the onset of fever ($p=0.03$). There was no significant relationship between CAL and nationality and other clinical systemic manifestation. There was no relationship between laboratory findings and the development of CAL before and after IVIG administration.

Conclusion CAL are more frequent in patients with incomplete KD. Risk factors for CAL are age between 1–5 years, male gender, and fever of >5 days duration. Early administration of IVIG reduces the frequency of CAL in patients with KD.

853 FINE NEEDLE ASPIRATION CYTOPATHOLOGY OF PEDIATRIC LYMPHADENOPATHY

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Background Pediatric lymphadenopathy is a challenging medical situation for the patient, the parent, and the physician. Although the bulk of these masses will be benign the fear of malignancy is omnipresent. Therefore, the objective of this study was to identify the common causes of lymphadenopathy among Sudanese children.

Methods One hundred pediatric patients presenting with peripheral lymphadenopathy were included in the study, their ages ranging from 2 to 14 years, with a mean age of 7 years. Demographic characteristics, clinical manifestations and FNA materials were prospectively obtained.

Results FNA was performed under general anesthesia in 100 cases (100%). There were no technical complications. All cases confirmed adequacy of specimen. Overall, FNA demonstrated 90(90%) benign lesions and 10(10%) malignant diagnosis. The benign lesion was reactive lymphoid hyperplasia ($n=64$), followed by benign granulomatous disease ($n=26$). Of the 10 cases diagnosed with malignancy, 7 (70%) were cases of non-Hodgkin's lymphoma and the remaining 3 (3%) were Hodgkin's lymphoma cases.

Conclusion lymphoblastic leukemia can be suspected in pediatric patients with lymphadenopathy. FNA provides a useful tool in the diagnosis of pediatric patients with peripheral lymphadenopathy.

854 A RARE, BUT SERIOUS SIDE EFFECT OF METHYLPHENIDATE

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Introduction Anaemia, leucopenia and thrombocytopenia have been rarely reported in patients receiving methylphenidate. There is no recommendation for routine blood testing unless clinically indicated. We report two children who developed reversible neutropenia on treatment with methylphenidate.

Method-case reports Case1: Routine blood test in a 14 year old boy with ADHD on Concerta XL 54 mg daily showed significant neutropenia (white cell count (WCC) - 3.1, neutrophil count - 0.8). The drug was discontinued following which WCC and neutrophil counts increased. Concerta was restarted but count started to decline after 2 weeks. Hence the drug was stopped. Since then, his counts have remained normal.

Case 2: Routine blood test in a 12 year old boy with ADHD on concerta XL 36 mg and 10 mg of methylphenidate immediate release daily showed neutropenia (1.72). The count was further reduced to 1.55 after a month. There was no history of any viral infection during or immediately before this period. Neutrophil count normalised 1 month after stopping medication.

Discussion Methylphenidate is the most commonly prescribed stimulant for ADHD. There are wide variation in haematological