Clinical profile of renal diseases in children in tertiary care center

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Introduction: Renal diseases in children and young adult can be difficult to diagnose early as it may present only with few symptoms, tends to have different course than adult and respond variably to different treatment. The pattern of renal disease in children is different from developing countries as compared to developed countries. This study provides some insights to profile of renal diseases in children at B.P. Koirala Institute of Health Science (BPKIHS) which is a tertiary referral center of eastern Nepal.

Methods: This is a hospital based prospective observational study carried out over a period of one year from March, 2014 to February 2015 at BPKIHS. Patients with renal disease, birth to 14 years of age were enrolled. The diagnosis of renal disease was made on clinical and laboratory criteria.

Results: Total of 154 patients was enrolled which contributed to 6.8% of total admission. The commonest feature of presentation was edema (78%), followed by fever (57%), hypertension (53%), decreased urine output (39%) and hematuria (27%). Most common diagnosis was acute glomerulonephritis (38%) followed by nephrotic syndrome (26%) and UTI (21%). Renal biopsy was done for 8.25% of cases and most of them were steroid dependent nephrotic syndrome. 5% of our cases expired because of MODS, sepsis and AKI.

Conclusion: Renal disease contributes to a large part of hospital pediatric admission as well as mortality and morbidity to the children. There is scanty data and need for detailed study on specific renal disease is of great need to plan optimal renal care for these children.

Incidence and burden of neonatal GBS in a tertiary care hospital in Saudi Arabia: A 13 year experience

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Background & Aim: Group B streptococcus (GBS) is a leading cause of neonatal bacterial sepsis and meningitis globally. Studies concerning the incidence and burden of neonatal GBS diseases in Saudi Arabia are lacking. This study aimed to determine the incidence and burden of GBS among neonates in association with maternal GBS screening.

Methodology: A retrospective cohort chart review study of all neonatal GBS disease identified through microbiology lab records within the first 90 days of life in KAMC from January 2004 to December 2016 were included. Charts were reviewed to collect maternal and neonatal characteristics using a standardized form.

Results: Over the 13 year study period, 55 cases of GBS disease were identified out of the 108,609 live births with an overall incidence of 0.51/1000 live births. Annual incidence in 2015 and 2016 were significantly higher than each of any previous year (p-value <0.0001), coinciding with the discontinuation of routine universal maternal GBS screening. Median age at presentation was 1 day (range: 0-54 days). Of the cases, 69.1% (n=38) had early onset disease (EOD). We found that 61.8% (n=34) of the mothers were not screened antenatal and 79.4% (n=27) of them had neonates presenting with EOD. UTI was the most common manifestation, seen in 47.3% (n=26), followed by sepsis at 43.6% (n=24) and mortality rate was 3.6% (n=2).

Conclusion: The incidence of neonatal GBS is similar to the worldwide incidence. Universal antenatal screening discontinuation was significantly associated with an increase in incidence of EOD.