

## ***Abstract from Current Literature***

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### **Correlation of hypertension with renal function in children with obstructive uropathy**

Md Habibur Rahman

*Pediatric Nephrology, Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh*

**Objective:** The aim and objective of the study was to see the correlation of hypertension with renal function and renal function with obstructive uropathy.

**Methods:** This prospective study was conducted in the department of Paediatric Nephrology, Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh over a period of two year from 01.01.2009 to 31.12.2010. In this study 41 different types of

obstructive uropathy patients with age range from 4 months to 14 years (Mean age 5.7 +/- 2.3 years) were enrolled. Patients were diagnosed by detailed history, physical examination and relevant imaging studies like ultrasound of the kidney, ureter, bladder region with post voidal residue, micturating cystourethrogram, DMSA and DTPA renogram with total and split renal function. Chronic kidney disease (CKD) Stagings were done by Schwarts formula.

**Results:** Important observation of this study were out of 41 patients 11 (26.88%) had hypertension 30 (73.17%) were Normotensive. Among the hypertensive patients 5 (45.45%) were in stage V (mean Ccr 10.7 +/- 2.57 ml/1.73 m<sup>2</sup>/min) and 2 (18.18%) were in stage IV (Mean Ccr 22.4 +/- 7.58 ml/1.73 m<sup>2</sup>/min) CKD, which is statistically significant (P<0.001). When normotensive patients were considered 13 (40.62%), 5(15.62%) and 4(13.33%) were in stage III, IV, and V CKD respectively. On the other hand, when CKD status were correlated with types of obstructive uropathy posterior urethral valve 25 (61%) were present in the majority cases and all (100%) of the patients had different grades of CKD.

**Conclusion:** It was observed from this study, patients with CKD due to obstructive uropathy may be Normotensive ever in stage V CKD, and posterior urethral valve was the commonest cases of obstructive uropathy in children.

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### **Clinical aspects of juvenile idiopathic arthritis: extended experience from Bangladesh**

Shahana A Rahman \*, Mohammad Imnul Islam, Manik Kumar Talukder

*Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh*

**Objectives:** To assess the different clinical aspects of JIA patients as well as the disease activity status during follow-up period. This study also compared its findings with the previous baseline study done in our country.

**Methodology:** A prospective observational study carried out in the department of pediatrics, Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh during the study period of January 2004 to December 2012. A total of 415 patients according to ILAR criteria were enrolled in the study. Patients who completed a 2 year follow-up period were assessed for disease activity status according to Wallace criteria. Data was collected in a predesigned questionnaire.

**Results:** Among the 415 cases, M: F ratio was approximately 2:1. Age range of the patients was 14 months to 16 years. Highest number of patients were present in the age group 11-16 years (49%) followed by 6-10 years. The duration of illness was more than 12 months in the majority. Polyarticular RF negative patients were most frequent (33%), followed by persistent oligo-arthritis (28 %). Among the patients who completed at least 2 years of follow-up, 68% achieved remission, of them 51% maintained remission and 16.3% had relapse.

**Conclusion:** Late diagnosis with long duration of disease was still common. Clinical profile of this study was almost similar to our previous study but differed from western JIA cases mainly in term of sex, subtypes and duration of illness. Majority of the patients went into remission. Wrong diagnosis was gradually decreasing and it seems that awareness about JIA is gradually increasing among the medical professionals in our country.

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**Haemodialysis in Paediatric Patients - Experience at Bangabandhu Sheikh Mujib Medical University (BSMMU)**

Syed Saimul Huque, Md. Habibur Rahman, Golam Muin Uddin, Ranjit Ranjan Roy, Afroza Begum, Russel Siddique, M Moazzam Hossain

*Paediatric Nephrology, BSMMU, Dhaka, Bangladesh*

**Objective:** Haemodialysis is one of the common renal replacement therapy throughout the world. Requirement of technical expertise, expensive equipment and intensive monitoring make the haemodialysis less available in Bangladesh. BSMMU is the only centre in Bangladesh doing paediatric haemodialysis since 2004. Therefore, we have very little experience of haemodialysis in children in our country. Here, we report our experience with 40 children who underwent haemodialysis.

**Methods:** This is a retrospective analysis of 40 children age 2-17 years, conducted in the Paediatric Nephrology Department of Bangabandhu Sheikh Mujib Medical University between January 2011 and December 2012.

**Results:** Forty children underwent haemodialysis over the 2 year period. The median age of the dialysis was

12 years. Male-Female ratio was 1.7:1. Obstructive uropathy and renal dysplasia was the most common causes of paediatric haemodialysis. Total 56 vascular accesses were created in 40 patients. Arteriovenous fistula was created in 32% of cases. Six patients recovered after getting emergency haemodialysis. Twenty six patients underwent maintenance haemodialysis; only 7 of them got more than 6 months haemodialysis. The urea reduction rate among the patients those getting >6 month haemodialysis is >65%. Both systolic and diastolic blood pressure was significantly reduced following haemodialysis. The dropout rate among these patients was very high (32%). Intradialytic hypotension was observed most frequently followed by nausea and vomiting, muscle cramp, hypertension, fever and disequilibrium syndrome.

**Conclusion:** This study suggests that haemodialysis by the trained personnel can be a safe and effective measure for children who require renal replacement therapy. However, emphasis should be given to minimize the intradialytic complications and dropout rate.

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