



Urolithiasis is associated with an identified metabolic abnormality

Zakir Khan

Khyber Medical School, Pakistan

Abstract:

Background: Urolithiasis is associated with an identified metabolic abnormality in approximately 40-50 % of children. The most commonly observed are hypercalciuria, hyperoxaluria, hypocitraturia and cystinuria with hypercalciuria and hypocitraturia being the most common.

Aim: To determine the frequency of different metabolic abnormalities in children with renal stones

Study design. Cross sectional study

Settings: Urology and Renal transplant department armed forces institute of Urology

Study duration. 30 August 2018 28 Feb 2019

Method: A total of 113 children with renal stones 1-14 years of age were included. Patients with urinary tract infection, puv, puj obstruction, reflux disease and CRF were excluded. Then 24 hour's urine sample was taken and sent to the pathology laboratory for measuring the level of Uric acid, calcium, oxalate and magnesium. Presence or absence of metabolic abnormalities i.e hypercalciuria, hyperoxaluria, hypocitraturia, hyperuricosuria and hypomagnesuria was noted.

Results: The mean age of patients was 8.45±3.14 years with age range from 1 – 14 years, out of 113, 62 (54.87%) patients were male and female patients 51 (45.13%) were, male to female ratio 1.2:1. In this study, I have found hypercalciuria in 54 (47.79%), hyperoxaluria in 24 (21.24%), hypocitraturia in 64 (56.64%), hyperuricosuria in 21 (18.58%) and hypomagnesuria in 39 (34.51%)

Conclusion: It is concluded that frequency of metabolic abnormalities is extremely high in children with renal stones, hypocitraturia and hypercalciuria are the most significant metabolic abnormalities noted in patients.

Biography:

Professor Dr. Punit Gupta is MBBS, MD (Medicine), DM (Nephrology) and PhD. He is the Honorary Nephrologist to the Governor of Chhattisgarh State since 2009. He is Chairman and Member of many important academic and management committees of various Government Medical Institutions in the country and the Pt. Deen Dayal Upadhyay Health Sciences University, Raipur. He has guided over 100 Postgraduate & Technologist student for their thesis & Project in Nephrology &



Research and also served as an examiner for the university examinations. A man of researches and publication, he has presented more than 160 research papers and abstracts on Kidney Diseases in Tribal populations at Renowned National and International Conferences. He was felicitated for being the only research scholar who had presented 29 abstracts in Indian Society of Nephrology conference, Pune and 11 research papers at Asia Pacific congress of Nephrology, 2008 in Malaysia on tribal kidney diseases.

Recent Publications:

1. Rossing P (2006) Diabetic nephropathy: Worldwide epidemic and effects of current treatment on natural history. *Curr Diab Rep.* 6:479-483.
2. Abraham Cohen-Bucay, Gautham Viswanathan (2012) Urinary Markers of Glomerular Injury in Diabetic Nephropathy. *International Journal of Nephrology.* Article ID 146987, 11 pages.
3. Macisaac RJ, Jerums G (2011) Diabetic kidney disease with and without albuminuria. *Curr Opin Nephrol Hypertens* 20:246-257.
4. Wanner C, Inzucchi SE, Lachin JM, et al. (2016) Empagliflozin and Progression of Kidney Disease in Type 2 Diabetes. *N Engl J Med.* 375(4):323-334.
5. Jian Wu, Xiaohong Shao, Kan Lu, Jing Zhou, Miaomiao Ren, Xin Xie, Jibo Liu, Yi Xu, Yaqin Ding, Xiaoyu Shen, Chunling Zhu (2017) Urinary RBP and NGAL Levels are Associated with Nephropathy in Patients with Type 2 Diabetes. *Cell Physiol Biochem.* 42:594-602.

8th International Conference on Nephrology and Urology; April 24-25, 2020; Prague, Czech Republic

Citation: Zakir Khan; Urolithiasis is associated with an identified metabolic abnormality; April 24-25, 2020; Prague, Czech Republic