Does warm climate increase the risk of nephrolithiasis in children?

Rahime Renda
Antalya Education and Research Hospital, Turkey

Different environmental and genetic factors were determined in urolithiasis. The most common metabolic abnormalities are hypercalciuria and hypocitraturia. To determine the demographic data and clinical features in patients with nephrolithiasis in the pediatric group; we retrospectively evaluated the clinical, radiological, laboratory findings and metabolic risk factors of 129 children (74 boys and 55 girls) with nephrolithiasis between 2015 and 2017. Patient symptoms, urinary infection, metabolic disturbances, radiological findings and treatment modalities were determined. The mean age of children was 7.2±3.4 years. The most common symptoms were macroscopic hematuria and renal colic. Urinary tract infection in 17 cases (13%) and 64 cases (50%) have calculus which was located bilaterally in the kidneys. Hyperuricosuria in 44 cases (34%), hypercalciuria in 15 cases (11%), hypocitraturia in 12 cases (9%), hyperoxaluria in 12 cases (9%) and cystinuria in 3 cases (2%) were found. We think that living in warm climates increase the risk of harboring kidney stones due to dehydration, which leads to a high excretion of urinary calcium and other minerals that promote the growth of kidney stones.

rahimeg@yahoo.com

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