

KSN 2016 Abstract Submission

Clinical Nephrology

KSN2016ABS-1085

Cause and Care of Gross Hematuria in Two Patients

Se Jin Park*, Jae Il Shin

Background: Idiopathic hypercalciuria (IH) is the commonest metabolic abnormality in patients with calcium kidney calculus disease, which is seen in 3-6% of children.

Methods: It is characterized by normocalcemia, absence of diseases that cause increased urine calcium, and calcium excretion that is defined as a calcium to creatinine ratio of >0.8, 0.6, 0.5, and 0.2 in children aged 0 to 6 months old, 7 to 12 months old, 12 to 24 months old, and older than 2 years old, respectively; and a high sodium intake with a urinary sodium to potassium ratio of >2.5. It can present with a range of clinical presentations such as hematuria, voiding dysfunction, flank pain, abdominal pain, nephrolithiasis, urinary tract infection, and decreased bone mineral density.

Results: Patients with IH have a generalized increase in calcium turnover, which includes increased gut calcium absorption, decreased renal calcium reabsorption, and a tendency to lose calcium from bone. There is an increased incidence of hypercalciuria in first-degree relatives of those with IH, but IH appears to be a complex polygenic trait with a large contribution from diet to expression of increased calcium excretion. The manifestations of IH may be attributed to increased tissue vitamin D response in at least some patients. Dietary modifications are often sufficient in the management of hypercalciuria. If the symptoms persist or a rare monogenic disorder is present, consideration should be given to medical treatment with a thiazide diuretic and/or citrate therapy.

Conclusion: We report two patients with IH who presented with recurrent gross hematuria.

Keywords: calcium to creatinine ratio, Dietary modifications, hypercalciuria, thiazide diuretic