LETTER TO EDITOR

Nephrolithiasis in PHPT

Primary hyperparathyroidism (PHPT) is a common disorder and is the third most common endocrine disorder after diabetes mellitus and thyroid disorders. This common endocrine disorder has scaled down into an asymptomatic disease revealed by routine biochemical evaluation of patients for a variety of skeletal and non-skeletal symptoms in much of the western world. However, in India, and similar developing regions of world it continues to be for the most part an overtly symptomatic disease with skeletal, renal and other organ system manifestations.

The renal manifestations of PHPT include nephrolithiasis, nephrocalcinosis, azotemia, hypercalciuria and renal tubular acidosis. The prevalence of renal stones in PHPT varies from less than 10% to over 70%, understandably due to differences in study populations and the imaging methods used to diagnose renal stones. We have previously reported renal involvement (nephrolithiasis and/or nephrocalcinosis) in 64% of patients with PHPT. Thirty eight percent of our patients with renal stones had a past history of at least one surgery and or lithotripsy for renal stones prior to diagnosis of causative PHPT. Surprisingly, none of these patients had serum calcium estimation advised during previous evaluation. This significant delay in the diagnosis of PHPT reflects the lack of awareness among physicians regarding PHPT.

The etiology and pathophysiology of renal stones in PHPT is not completely understood. Hypercalciuria is considered to be only one of the major risk factors and the role of hypercalciuria on the risk of renal stones has not been entirely clarified. The risk of nephrolithiasis has been associated with local urinary factors in PHPT. There is mounting evidence for an association between nephrolithiasis and calcium-sensing receptor gene polymorphisms among PHPT patients. There are two reasons that all PHPT patients should undergo imaging (USG or CT abdomen) for renal stones. First, the biochemical variables (serum calcium, PTH and 24-hour urinary calcium excretion) are unreliable in the prediction of renal stones in PHPT. Second even asymptomatic renal stones in patients with PHPT warrant parathyroid surgery.

Raiz Ahmad Misgar, MD, DM
Arshad Iqbal Wani, MD
Department of Endocrinology, Sher-i-Kashmir Institute of Medical Sciences, Srinagar, Kashmir, India.

Correspondence
Dr. Raiz Ahmad Misgar
Associate professor
Department of Endocrinology, SKIMS, Srinagar
E-mail:drreyaz07@rediffmail.com