Half and Half Nails (Lindsay’s nails) in Chronic Renal Disease

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The Case

A 19 year old male, student, presented with a history of progressive loss of vision from right eye since one and half year and from the left eye since one year. The patient also complained of multiple episodes of generalized seizures three months back. Patient was diagnosed with tubercular choroiditis with chronic kidney disease with seizure disorder. The patient was evaluated but no intracranial tuberculosis was found. Physical examination was unremarkable except for finger nails showing transverse distal red-brown band occupying most of the nail with a dull, white proximal band (half and half appearance) (Figure 1 and Figure 2). Cranial nerve examination revealed visual acuity in right to be PL and on left to be FC at 10 cm. Fundus showed hazy media. Remaining systemic evaluation was normal. Investigations revealed Hb-12.4 gm%, WBC-8000/dL, N-80%, L-15%, E-4%, M-1%; urea-52 mg/dL, creatinine-2.9 mg/dL, uric acid-9.7 mg/dL, Na-160 mmol/L, K-3.6 mmol/L, RBS-104 mg/dL; LFT: ALP-722 U/L. 24 hour urine protein-70 mg/day. USG-KUB-Right: 8.9 x 3.7 cm, Left- 9.4 x 4.4 cm. B/L echogenicity increased with poor cortico-medullary differentiation. Urinary bladder distended, wall thickened (5 mm) and irregular signifying medical renal disease with cystitis. MRI of brain was normal.

Our patient presented with half and half nails (HHN). HHN are usually observed in patients with renal disease but also described in psoriasis, Behcet’s syndrome, and Crohn’s disease. A reddish discolouration of the distal nail was first reported by Bean in azotaemia which was later described and termed as “half and half nails” by Lindsay in a series of 1500 cases. He postulated that the pathophysiology involved widening of the onychodermal band. While the red colour was considered due to increase in capillaries and thickening of walls, Leyden and Wood attributed the brown discolouration to melanin deposition throughout the distal portion of the nail plate as was evident on linear nail biopsy. It was proposed that toxic substances of uraemia not only stimulate nail matrix melanocytes to produce...
melanin, but also slow nail growth rate resulting in larger accumulation of the pigment. The presence of HHN neither correlates with degree of renal impairment nor with blood urea nitrogen or creatinine levels. HHN can be an important clue in making the diagnosis of renal disease.

References