

Half-and-half nail

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A 37-year-old man with uncontrolled hypertension for last 7 years presented with progressive shortness of breath for 2 months. Laboratory evaluation revealed haemoglobin 7.2 g/dL, fasting plasma glucose 96 mg/dL, blood urea nitrogen 122 mg/dL, serum creatinine 7.3 mg/dL, sodium 125 mEq/L, and potassium 6.3 mEq/L.

On examination, his fingernails had a pink transverse band distally and dull whitening of the proximal nail beds (Figure 1).

Figure 1. Fingernails showing half-and-half nail changes



Half-and-half nails (brown arcs or Lindsay's nail) show red, pink or brown distal bands occupying 20–60% of total nail length with the remaining proximal portion exhibiting a dull white ground glass appearance. The line of demarcation is sharp and runs parallel to the distal or free margin of the nail.

It was first reported by Bean in 1963.¹ It is more common in fingernails but may occur in toenails. This disorder is commonly found in patients with chronic kidney disease and infrequently with Behcet's syndrome, yellow nail syndrome with hyperthyroidism, pellegra, and in healthy persons.

Frequency of half-and-half nail changes in renal failure varies between 20–50% and there is no correlation between severity of renal disease and the length of the distal bands. The lesion often appears early and remains permanent even after haemodialysis, but disappears completely within 2 to 3 weeks after successful renal transplant.

It was proposed that the discoloration was secondary to melanin deposition in the distal portion of the nail plate.² Possibly the toxic substances of uraemia stimulate the nail matrix melanocytes to produce melanin, and the associated slow nail growth in renal failure results in large accumulation of the pigment. Others postulated that increase in the number of capillaries and thickening of the capillary walls in the nail beds were responsible for the lesion.³

The presence of these nail changes warrants thorough evaluation to exclude chronic kidney disease.

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References:

1. Bean WB. A discourse on nail growth and unusual fingernails. *Trans Am Clin Climatol Assoc* 1963;74:152–67.
2. Leyden JJ, Wood MG. The “half-and-half nail”: a uremic onychopathy. *Arch Dermatol* 1972;105:591–2.
3. Kint A, Bussels L, Fernandes M, Ringoir S. Skin and nail disorders in relation to chronic renal failure. *Acta Derm Venereol* 1974;54:137–40.