

SKIN MANIFESTATIONS OF INTERNAL DISEASE

ACQUIRED ZINC DEFICIENCY AND SYSTEMIC TRIGGERS

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Background : Zinc deficiency presents in one of the two forms; 1)Acrodermatitis enteropathica (AE), uncommon autosomal recessive genetic disorder of zinc malabsorption and 2)Acquired zinc deficiency, which has multiple etiologies.

Observation : A 46 year old female presented with multiple, dark coloured, itchy, scaly lesions involving both her upper and lower limbs, since 1 month. The lesions on the thigh were painful. No similar history in the past or family. She was a diagnosed case ileocaecal tuberculosis, therapy since 7 months. She was also a renal transplant recipient. No history of chronic diarrhoea, decreased appetite, loss of hair or alcohol abuse.

Histopathological examination : Hyperkeratosis, epidermal pallor, and psoriasiform hyperplasia suggestive of nutritional dermatosis

Patient was treated with 3 mg/kg/day of elemental zinc. There was reduced erythema and scaling by 1 week, decrease in thickness by 2 weeks. complete clearance by the end of 3 months.

Key Message : Acquired zinc deficiency occurs by virtue of low nutritional intake, malabsorption, excessive loss of zinc, chronic diseases, or a combination of all these factors.

Intestinal tuberculosis is the most important cause of malabsorption in India, next to tropical sprue. The causes of Zn deficiency in kidney disease are attributed to decreased dietary intake and intestinal absorption, increased endogenous secretion, and increased urinary excretion, all may contribute to altered Zn metabolism. Serum Zinc levels are commonly low in chronic kidney disease. After renal transplant the loss of zinc increases further and the deficiency may become clinically apparent.

Prompt clinical improvement ensues, even before any changes in the serum zinc level.

A combination of causes, i.e. gastrointestinal and renal impairment, both, have lead to the deficiency of Zinc and the respective cutaneous manifestations in our patient.

The case is reported due to the rarity of acquired acrodermatitis with multiple etiologies.