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## **Acrodermatitis Enteropathica**

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Received: May 10, 2001

Acrodermatitis enteropathica is well-known disease, especially in pediatric and dermatology clinics. This rare disease is caused by an inability to absorb sufficient zinc from the diet (1). Initial signs and symptoms begin in the early period of life. The cutaneous eruptions consist of vesiculobullous, eczematous, dry, scaly, or psoriasiform skin lesions symmetrically distributed in the perioral, acral, and perineal areas (2). Diagnosis is established through a constellation of clinical findings and via the detection of a low plasma zinc concentration levels.

An 18-month-old girl was admitted with diarrhoea, failure to thrive, severe photophobia and abnormal vision. Diarrhoea had persisted since the age of six months. She was breast fed in the first year and provided with supplemental formulas thereafter. She was the fourth child of healthy and consanguineous parents. The other children were healthy. She had been hospitalized ten times since birth because of recurrent diarrhoea, fever, and dehydration. On admission, she weighed 8 kg (< 5th percentile for age and gender) and her height was 75 cm (< 5th percentile for age and gender). Physical examination revealed that she had cool and pale skin with erythematous and psoriasiform skin lesions symmetrically distributed in the perioral, acral, and perineal areas, ocular lesions with bilateral conjunctivitis, cataract in the left eye, total alopecia with loss of eyebrows, and sparse eye lashes (Figure 1 and 2). Laboratory analysis revealed that haemoglobin was found to be 7.9 g/dL (normal for age 11.5-15.5 g/dL); haematocrit 24% (normal for age 35-45); mean corpuscular volume (MCV) 55 µm3 (normal 70-85 µm3); red cell distribution 22% (normal 11%); calcium total 7.9 mg/dl (normal for age 8.8-10.8 mg/dL); folate 0.7 ng/mL (normal for age 1.8-9 ng/mL);



Figure 1. The skin lesions in the perioral, periocular areas, total alopecia with total loss of eyelashes and eyebrows, conjunctivitis, and bilateral cataract.



Figure 2. The skin lesion of the perineal areas.

serum iron 11  $\mu$ g/dL (normal 20-180  $\mu$ g/dL); ironbinding capacity 490  $\mu$ g/dL (normal for age 250-400  $\mu$ g/dL); magnesium 1.8 mg/dL (normal 1.5-2.5 mg/dL); and zinc (in serum) 4  $\mu$ g/dL (normal 64-118  $\mu$ g/dL).

Acrodermatitis enteropathica was diagnosed together with the clinical and laboratory findings.

Our case has the most prominent manifestations of acrodermatitis enteropathica consisting of diarrhoea, psoriasiform skin lesions, ophthalmological findings and low plasma zinc concentration. The most ocular manifestations of acrodermatitis enteropathica are photophobia, conjunctivitis, blepharitis, and corneal

distrophy. However, cataracts are a rarely reported ocular manifestation in acrodermatitis enteropathica (3,4), and a cataract was found in the left eye of our case (Figure 1). Skin lesions, conjunctivitis, and plasma zinc levels were improved by zinc sulphate replacement of 50 mg twice a day over six months, but the cataract has remained.

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## References

- Walravens PA, Hambidge KM, Neldner KH, et al. Zinc metabolism in acrodermatitis enteropathica. J Pediatr 93: 71-73, 1978.
- Danbolt N. Acrodermatitis enteropathica. Br J Dermatol 100: 37-40, 1979.
- Cameron JD, McClain CJ. Ocular histopathology of acrodermatitis enteropathica. Br J Ophthalmol 70: 662-667, 1986.
- Racz P, Kovacs B, Varga L, Ujlaki E, Zombai E, Karbuczky S. Bilateral cataract in acrodermatitis enteropathica. J Pediatr Ophthalmol Strabismus 16: 180-182, 1979.