

SHORT REPORTS

ACRODERMATITIS ENTEROPATHICA TYPE II IN LIBYA

Abdalla Ibrahim El-Sherif, Ibtisam Mahdi El-Mangoush,
Mohammad Suleman Belhaj and J S Pasricha

A 6-month-old Libyan girl was seen with well-defined, erythematous, scaly, exudative and crusted lesions around the mouth, neck, back, perineum, thighs and legs, suggestive of acrodermatitis enteropathica. Two of the 3 other siblings had also suffered from similar lesions for a month or so at the age of 5-7 months. All of them were on breast feeding and improved on weaning. This is believed to be type II acrodermatitis enteropathica caused by deficient secretion of zinc in the mother's milk.

Key words : Acrodermatitis enteropathica type II, Zinc deficiency.

Acrodermatitis enteropathica (AE) is now¹ classified into 3 types: (1) The classical AE (Type I) is caused by defective absorption of zinc from the gut of the patient, and manifests only after the child has been weaned from breast-feeding. (2) Acrodermatitis enteropathica type II is caused by deficient secretion of zinc in the mother's milk and thus it manifests when the child is still being fed on breast milk and recovers after weaning. (3) Acrodermatitis enteropathica type III occurs as an acquired disorder in preterm infants on prolonged parenteral alimentation. We are reporting our first Libyan child suffering from AE type II.

Case Report

A 6-month-old Libyan girl was seen with extensive, fairly well-defined erythematous, scaly and slightly exudative lesions involving the face, around the mouth, neck, most of the back, perineum, medial and posterior aspects

of the thighs extending upto the upper parts of the legs. The folds of skin were more erythematous and showed maceration especially in the groins and the folds of neck. Most of the lesions had numerous small satellite lesions around the main lesion.

The lesions had started when the child was 5-month-old and rapidly became generalized. There was no history of diarrhoea, although the child had been passing 1-2 poorly formed stools per day, even since birth. The child was still exclusively on breast milk.

This patient had three siblings, the eldest was a 7-year-old girl discovered to be deaf and mute at the age of 1 year, the second sibling was a 4-year-old boy who developed similar lesions on his genitalia when he was 5-7 month old and recovered within 3 weeks. The third sibling was 1½ year old and had also developed similar lesions at the age of 5-7 months and recovered within 1 month. These siblings were on exclusive breast milk when they developed the lesions and recovered on weaning. The mother of the child has 2 sisters and 2 brothers, but none of their children had history of having developed similar lesions. There was no other significant finding in the history or examination, except that the child

From the Department of Dermatology, Faculty of Medicine, Garyonis University, Benghazi, Libya.
Address correspondence to : Dr. J.S. Pasricha, Department of Dermato-Venereology, All India Institute of Medical Sciences, New Delhi-110029, India.

had oral thrush-like lesions. Examination of the lesions for candida was however, negative. Zinc level estimations in the child or the mother could not be carried out for want of facilities.

Weaning of the child from the mother's milk and topical treatment with clotrimazole-corticosteroid cream led to a slow but considerable improvement within 1 week time. Zinc sulphate was not available for therapy except a tonic which contained very low content (0.5 mg/ml) of zinc.

Comments

Although the diagnosis in this case could not be confirmed by estimation of the zinc levels, the clinical picture of dermatitis was highly suggestive of the diagnosis of acrodermatitis enteropathica. History of loose motions is not essential in all cases. The classical cases of acrodermatitis enteropathica are normal as long as they are breast fed, but develop manifestations when they are weaned. Recently, another variant of acrodermatitis enteropathica has been described in which the defect lies in the mother who does not secrete normal amounts of zinc in her milk and thus

her children develop zinc deficiency and acrodermatitis enteropathica while they are on breast milk and recover on weaning.²⁻⁶ The family history in our patient and her recovery on weaning suggests that this case belonged to the latter category of acrodermatitis enteropathica. To our knowledge, this is the first reported case of this disease from Libya.

References

1. Sharma NL, Sharma RC, Gupta KR et al: Hypozincemia in infancy, *Ind J Dermatol Venereol Leprol*, 1985; 51 : 256-260.
2. Aggett PJ, Atherton DJ, More J et al: Symptomatic zinc deficiency in a breast fed preterm infant, *Arch Dis Child*, 1980; 55 : 547-550.
3. Ahmed S and Blair AW: Symptomatic zinc deficiency in a breast fed infant, *Arch Dis Child*, 1981; 56 : 315-318.
4. Husnoo MA, Hutchinson PE and Swift PGF: Symptomatic zinc deficiency in a breast fed infant, *Arch Dis Child*, 1981; 56 : 735-736.
5. Parker PH, Helinek GL, Meneely RL et al: Zinc deficiency in a premature infant fed exclusively human milk, *Amer J Dis Child*, 1982; 136 : 77-78.
6. Zimmermann AW, Hambidge KM, Lepow ML et al: Acrodermatitis in breast fed premature infants: Evidence for a defect of mammary zinc secretion, *Paediatrics*, 1982; 69 : 176-183.