Oman Medical Journal [2022], Vol. 37, No. 2: e364

Transient Symptomatic Zinc Deficiency: An Overlooked Diagnosis in Acrodermatitis Enteropathica like Eruption in an Exclusively Breastfed Preterm Infant

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ARTICLE INFO

Article history:

Received: 1 December 2020

Accepted: 9 October 2021

ONLINE:

DOI 10.5001/omj.2022.51

Dear Editor,

In the November 2020 issue of the *Oman Medical Journal*, Al Naamani and Al Lawati described a case of a two-month-old breastfed infant, born at 33 weeks gestation, with vesiculo-pustular lesions in the perioral region and erythematous scaly lesions in the neck, accompanied with diarrhea and alopecia.[1] Although genetic testing for mutations in the *SLC39A4* gene was not performed due to logistic reasons, the authors surprisingly made the diagnosis of acrodermatitis enteropathica (AE) based on the manifestations mentioned above and the dramatic response to zinc supplements. Therefore, I presume that the transient symptomatic zinc deficiency (TSZD) should be considered in the studied infant. My presumption is based on the following point. It is worthy of mentioning that the deficiency of zinc in breastfed babies, caused by a low level of zinc in their mother's milk, is an under-recognized condition. Preterm babies are more susceptible to developing zinc deficiency than full-term babies due to their high zinc needs, inadequate zinc body stores, and poor ability to absorb zinc from the intestine. Therefore, it usually presents with an AE-like clinical picture.[2] Additionally, mutations in the zinc transporter *SLC30A2/ZnT2* gene, which result in impaired zinc secretion into mother's breast milk, ultimately predisposes to TSZD development in exclusively breastfed infants. Therefore, low mother's serum and milk zinc levels and mutational study are important hallmarks in the diagnosis. Unlike AE, the TSZD-related symptoms often resolve after weaning.[3] With the advance in obstetric and neonatal care resulting in the increasing rate of preterm babies fed with only breast milk, TSZD cases have been increasingly reported.[4,5] Regrettably, the authors did not consider performing genetic analysis in the mother and measuring zinc values in her serum and breast milk. Consequently, this limitation might bring into question the diagnosis of AE in the case in question.

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