

IgE Level and Eosinophil Count in Relation with Type of Feeding in Children with Atopic Dermatitis

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Abstract

- Background** Atopic dermatitis (AD) is a chronic inflammatory disease of the skin that occurs in persons of all ages but is more common in children.
- Objective** To determine the effect of breast feeding on atopic dermatitis.
- Methods** A descriptive study carried on pediatric patients visiting asthma and allergy center and pediatrics out patient in Tikrit Teaching Hospital from March 2007 to August 2007. This study included 100 patients with AD; 58 cases (58%) were males and 42 cases (42%) were females, they all underwent full history, clinical examination and blood sampling for total WBC count, eosinophil cells count, and total serum IgE.
- Results** Statistical analysis was done by using (ANOVA, Chi-square test). There was significant association between severity of AD according to scorad index (S.I) and type of infant feeding, the mean severity score (S.S) for the breast fed (B.F) children was 21.48 ± 4.96 , while the mean S.S for the formula fed (F.F) children was 35.70 ± 9.79 , p value ≤ 0.05 . There was a significant association between the hematological parameters of disease activity (total serum IgE level, eosinophil count) and type of infants feeding; the mean total serum IgE level for the B.F children was 211 ± 178.7 IU/ml, was lower than mean total serum IgE level for F.F children (638.2 ± 355.8 IU/ml). The mean eosinophil cells count for the B.F children (355.7 ± 193.1) cell/ μ l was lower than the mean eosinophil cells count for the F.F children (654.8 ± 236.3) cell/ μ l.
- Conclusions** There is significant association between the type of feeding and the level of hematological parameters (IgE and eosinophil count), and that breast feeding is protective against development of severe AD.
- Key words** atopic dermatitis, breast feeding, IgE, eosinophil

Introduction

Atopic dermatitis (AD) is a chronic inflammatory skin disease that occurs with a peak onset in infancy and the majority of cases presenting in the first few years of life ⁽¹⁾. Atopic dermatitis is also known as atopic eczema. Exclusive breast feeding seems to have a preventive effect on the early development of allergic disease up to 2 years of age ⁽²⁾. It is widely believed that B.F should be recommended

for primary prevention of allergic disease. Exclusive B.F beyond four months of age reduces the development of atopic disease in early life ^(3,4). Hanifin and Rajka (1980) proposed major and minor criteria based on their clinical experience. To diagnose atopic dermatitis we must have 3 or more of these major features plus three or more of minor features ⁽⁵⁾. Elevated IgE levels are found in up to 80 % of affected patients, IgE