

Atopic dermatitis and breast feeding of Somali children living in Somalia and in Italy

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The aim of this study was to investigate the feeding habits in the first year of life and prevalence of atopic dermatitis (AD) in a group of Somali children born and living in Italy and in a group of Somali children born and living in Somalia. The first group comprised 59 children (median age 15 months; range: 12-24 months) and the second group 95 children (median age 16 months; range: 12-24 months). The mothers were asked to fill in a questionnaire on the duration of breast feeding and weaning age of their children. In the Somali children born and living in Rome we observed earlier introduction of cow's milk ($p < 0.001$), and earlier weaning ($p < 0.001$). The prevalence of AD was higher in the Somali children born and living in Italy ($p < 0.001$).

**A. F. Asseyr, A. A. Botan,
M. G. Ziruolo*, L. Businco***

Department of Pediatrics, Somali National University, and *Division of Allergy and Immunology, University "La Sapienza", Rome, Italy

Dr. Abdullahi Farah Asseyr
Clinica Pediatrica-Servizio
di Allergologia e Immunologia
Università, "La Sapienza"
Viale Regina Elena 324
00161 Roma
Italy

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Recent studies show that the rate and duration of breast-feeding varies in different socio-economical and cultural environments.

In developing countries the breast feeding rates are high among the traditional groups and low among the educated upper-class women (1). Similar changes have also been noted among different ethnic groups living in the same region (2, 3). Surveys conducted on the breast feeding and weaning habits of immigrant families in industrialized countries, showed a quick adaptation to modern feeding habits of the host country and a rapid decline in the traditional feeding practices of their country of origin (4-5).

Atopic dermatitis (AD) is a multifactorial disorder and environmental factors, such as foods, inhalant and food allergens and infections, play an important role in this disease (6-9). The aim of this study was to investigate the feeding habits in the first year of life and the prevalence of AD in a group of Somali children born and living in Italy and in a group of Somali children born and living in Somalia.

Subjects and methods

We enrolled 2 groups of Somali children: 59 children born and living in Rome, consecutively attending, from 1 January to 30 March 1989, an out-patient clinic for assistance to emigrants from developing countries, and 95 children born and living in Mogadishu consecutively attending, from 1-31 January 1989, an out-patient pediatric clinic in Mogadishu.

Each mother was asked to fill in a questionnaire on the breast feeding period and weaning age of her child. The interviews were conducted by two of us (A.F.A. and A.A.B.) in the mothers' language. All mothers participated willingly in the survey. The diagnosis of AD was made by the same investigators (A.F.A. and A.A.B) according to diagnostic criteria by Hanifin (10).

The chi-square test was used for statistical analysis.

Results

The median age of the 59 children born and living in Rome was 15 months (12-24 months). The

Table 1. Age of introduction of cow's milk in Somali children resident in Italy (n=59) and in Somalia (n=95)

Age at introduction of cow's milk (mo)	Italy	%	Somalia	%
1-3	1	(2)	0	(0)
4-6	14	(24)	0	(0)
7-12	44	(74)	30	(32)
>12	0	(0)	65	(68)
Total	59		95	

p<0.001

median age of the 95 children born and living in Mogadishu was 16 months (12-24 months). Cow's milk (adapted formulas or fresh milk) was given before the 6th month of life to 15 (26%) Somali children living in Italy but not to the Somali children living in Somalia (p<0.001) (Table 1). In total, 35/59 children (60%) living in Rome were weaned before the 4th month (19% in the 3rd month, 41% in the 4th month), while only 13/95 children (14%) living in Somalia were given fruits or vegetables before the 4th month (p<0.001).

Ten of 59 children (17%) living in Rome were affected by AD, while no case of AD was observed among the 95 Somali children born and living in Somalia (p<0.001).

Discussion

The results of this study suggest that urbanization and emigration to industrialized countries exert a strong influence on feeding habits. A rapid adjustment to the habits of the host country proportionate to a loss in traditional practices is taking place. A highly significant difference was noted in cow milk introduction and age of weaning between the Somali children living at home and those in Italy (p<0.001). In Somalia, a high percentage of children are breast-fed for up to and over 12 months due to a strong adherence to Islamic law and African tradition (11, 12). Further for economic reasons, dietary products for infants are less available.

The higher prevalence of AD in the Somali children living in Italy (p<0.001) suggests that various environmental factors and early weaning might have contributed to the development of this disorder, as previously reported (6, 13-16). There is no available data on the prevalence of AD in immigrant children, although studies on the prevalence of asthma have demonstrated the influence of emigration on its development.

Morrison Smith et al. (17) in a study of 20,958 school children in Birmingham, of whom 962 were

black children and 471 Asian, found that black children born in England had a similar prevalence of asthma as European children, whereas children born in the West Indies or in Asia had a significantly lower prevalence.

Several studies have examined the relationship between early introduction of cow milk and development of AD (6, 13-16, 18-21), and various studies indicate that cow milk, egg, soya, wheat and fish account for nearly 90% of food allergic reactions in children with AD (8, 16).

Differences in life-style and such environmental conditions as furniture and insulation of houses, absence of woollen clothes, etc. in Somalia are all environmental factors which may explain the significantly lower prevalence of AD in children living there. Unfortunately, it was not possible for us to obtain familial histories of atopic diseases in the 2 groups of children. In Somalia, atopic diseases are not usually recognized for several reasons, such as low socio-economic conditions, poor medical facilities, high morbidity and mortality from infectious diseases.

In conclusion, this study indicates that emigration to Italy induces a profound change in the feeding practice of Somali infants and a significant increase of AD, which may be secondary to feeding practices and other major changes in life-style.

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