

ADVANCES IN THE MANAGEMENT AND SECONDARY PREVENTION OF ATOPIC DERMATITIS

Over the last two decades the impact of allergic diseases on society has continued to grow, with not only the incidence but the severity of atopic disease increasing in industrialized countries. Infants who manifest atopic dermatitis at an early age have a heightened risk of multiple food allergy (1) and asthma (2). Multiple food allergy may, moreover, be associated with nutritional repercussions (1). However, unlike established disease early sensitization may be prevented or treated effectively.

Effects on Growth

In a recent epidemiological study we evaluated a cohort of 100 infants with atopic symptoms related to cow's milk allergy. We found that patients fell into one of two groups. In the first and larger group, the onset of symptoms was early, in the first few months of life, cow's milk allergy was diagnosed within 9 months and a mean of 6 months from birth. The second, smaller group, had a later onset after weaning. Normal treatment of both these groups consists of an elimination diet, coupled with the use of dietary supplements. In older children, soy and the use of calcium supplements may be sufficient although in infants more complete replacement supplements should be used. In the early onset group, we found that growth was affected in symptomatic infants. Relative length decreased when the child became



symptomatic. Although energy intake, prealbumin, transferrin, alkaline phosphatase, zinc and vitamin A were normal in these children, no catch-up growth was observed using the standard elimination diet and conventional dietary supplements until the infant was approximately 2 years. Fatty acid abnormalities were also detected more frequently in the early onset group.

Adherence Problems with Elimination Diets

During breast feeding, the initial focus of treatment for childhood food allergy should be on the mother's diet, with the objective of eliminating allergenic substances from her diet. This in turn requires more specific diagnosis of allergies. However, although elimination diets are effective in reducing atopic symptoms, adherence may be difficult for mothers. This was illustrated in a second cohort of 100 infants who developed atopic dermatitis during exclusive breast feeding. Patients were evaluated

at the point at which weaning or substitute milk was to be introduced, and were classified according to whether their mothers had eliminated single food items from their diet (e.g. tomato), whether they had also discontinued cow's milk and related products, or whether they had in addition also eliminated cereals.

In general, mothers who merely eliminated a specific foodstuff from their diets did not find this ameliorated the atopic symptoms, whereas those who took more radical approaches did achieve success but found the restricted diet very demanding. Most of the women reported tiredness and some experienced nutritional problems. At 5 months, 97% of the mothers in the cohort requested a formula.

Amino Acid-Based versus Extensively Hydrolyzed Formulas


We compared the efficacy of an amino acid-based and extensively hydrolyzed protein formulas in the management of infants with an onset of food allergy at 2 months of age (3,4,5). In total, 73 children with pro-

ven cow's milk allergy were enrolled, with a mean age of 5 months (range 2-10 months).

In both groups there was a significant improvement in eczema as assessed by the SCORAD scale. Mean SCORAD score was reduced in both groups from 25 (95% CI 20-29) to 13 (95% CI 9-18; $p < 0.0001$). However, whereas growth was stabilized in the extensively hydrolyzed group, there was no catch-up growth (i.e. improvement in length standard deviation score). By contrast, catch-up growth was achieved in the amino acid-based formula group. Thus, although both extensively hydrolyzed and amino acid formulas are effective in treating atopic eczema in infants, the amino acid formula has the added advantage of improving relative length.

Conclusions

The development of an amino acid-based formula represents an important step forward in nutrition for infants with food allergy since not only does it provide safe and effective nutrition, but also promotes growth. In the future, we can

expect to see increased use of nutritional programs based upon amino acid-based formulas, coupled with the use of additional supplements designed to ameliorate the gastrointestinal allergic response. 

Article written by Dr. Erika Isolauri from the Department of Pediatrics at the University of Turku, Finland.

For more information concerning Neocate, please call 1-800-Neocate, or visit the Web site at www.neocate.com.

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