**Negative impact of multiple elimination diets on nutritional status in food allergic children**

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**Introduction:** Nutritional deficiencies have been reported in food-allergic children. The aim of our study was to assess the actual food intakes and nutritional status of children with suspected or proven multiple food allergies when elimination diet was not supervised by continuing dietitian follow-up.

**Methods and Subjects:** 22 children (8 girls, 16 boys; mean age 5.0± 4.1 years) with proven (19 children) or suspected only (3 children) multiple food allergies were studied retrospectively. Twenty children presented with atopic dermatitis, eight with anaphylaxis, two with hives and four with gastrointestinal symptoms. Two children had additional conditions that influenced nutritional status (one cromosomopathia, one histamine intolerance). Nutritional intakes assessment was passed on exact questioning on actual food avoidance. Children's weight, height, laboratory data for nutritional parameters were assessed.

**Results:** In 18 (82%) children additional questioning revealed their diet was extended from advised by physician. Fourteen children (64%) did not eat milk, egg and wheat and in addition numerous variable foods were also avoided in their diets- in nine of animal origin and in twelve of plant origin (most often peanuts and tree nuts). Two children did not consume egg and milk and excluded also some plant and/or animal foods, two children avoided numerous plant foods, one child did not eat cow milk and some plant foods and one child had no special food restrictions. In described group of 22 children the means for anthropometric measures were below the average for age (41.P for height and 35.P for weight). Three children were <-3% for relative height and two children were <-3% for relative weight. Lower serum levels of levels of albumin/iron/zinc/selemium/vitamin B12 were found in 5/8/11/10/1 children, respectively. Three children had osteoporosis and one had osteopenia. Eleven children (50%) had multiple nutritional deficits. Combined diet without cow milk, egg and wheat (14 children) was always associated with nutritional deficits.

**Conclusions:** Multiple food elimination diet (e.g. without cow milk, egg and wheat) has negative impact on nutritional status of food-allergic children if not supervised continually by experienced physician and dietitian.