

toms. The majority thought that food allergies are very individual and that exposure to a variety of foods early in the weaning process was important. Mothers were predominantly interested in 3–4 key allergens (milk, eggs, wheat and nuts). There was a lack of credibility that other foods (fish/soya) could cause adverse reactions and reference to other potential allergens was deemed inappropriate.

Conclusion: Overall weaning was viewed as a natural process with the goal of enjoyment of food and development of a broad palate. It was not viewed as a clinical process and therefore participants wanted the process to be simplified, rather than medicalised. It is important for health professionals to be aware of how mothers view the weaning process in order to provide advice that will promote adherence to guidelines.

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Dietetic evaluation in food allergic children

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Background: Elimination diet is the main treatment for food allergy. In children, food exclusions could imply a lack of nutrients and energy, resulting in a deficit of growth. In older children food allergy reactions can affect the nutritional behavior resulting in a monotonous diet.

This observational study aimed to assess the dietetic profile of children with food allergy in comparison with the Italian guidelines on nutrition.

Method: A total of 89 patients (pts), 49 males and 40 females, average age 6 years (1–18), allergic to one or more food, i.e. cow's milk (CM), egg, wheat, nuts, soy, fish, fresh fruit, meat, were recruited.

Each patient was evaluated through a 7-day diary and anthropometric data of weight and length were commented using growth charts.

All registrations were analyzed with the nutritional software Gedip Solution and nutritional data were compared with the LARN (Nutrient and Energy Recommended Intake) Italian Guidelines IV edition (2014).

Patient with concomitant diseases or in state of malnutrition were excluded.

Results: About 30% of pts reach the recommended energy intake, while pts with more than three allergies have a significant difficulty in reaching it in comparison to pts with allergies to up to 2 foods. Analyzing macro nutrients, proteins contribute

for 13.3 (8–21)% of average energy intake, lipids for 32.3% (20–45%) and carbohydrates for 54.25% (38–71%). The average protein intake was 2.48 (min 0.84 to max 4.23) g/kg per die, higher than LARN guideline RDA (0.9–1 g/kg/die).

About 89% patients don't reach the recommended amount of calcium and only 22.5% take a daily supplementation. Data do not significantly differ among pts with CMA. Calcium supplementation is more common among pts with CMA, although only 26.4% integrate it correctly daily. About 54% of all pts drink sweetened beverages or fruit juices. About 61.8% eat fruit and vegetables daily. Among patients with allergies to fruits and nuts, 57.9% eat fruits and 63.1% eat vegetables.

Conclusion: The number of food exclusions impacts on energy intake, although protein intake is twice higher than recommendation. Calcium deficiency is common in all allergic pts, even if they can eat dairy products. Fruits and vegetables are eaten daily by most pts, even when they had a previous reaction to some fruits.

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Selection of food for oral food challenge to apply the result to dietary counseling based on the antigenicity at antigen component level

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Background: Symptoms induced by food allergen depend on the amount and antigenicity of the food allergen at antigen component level. In the management of food allergy, dietary counseling according to the result of oral food challenge (OFC) is essential. Selection of OFC material is the key to do dietary counseling aiming at tolerance safely and successfully.

Method: Quantitative evaluation of antigenicity at component level was made for OFC material for hen's egg allergy and cow's milk allergy. The amount of ovalbumin (OVA) and ovomucoid (OM) contained in OFC material for egg allergy and the amount of beta-lactoglobulin (BLG) and casein contained in OFC material for milk allergy were evaluated in sandwich ELISA system.

Results: There was a broad variation in the amount of OVA, OM and OVA/OM ratio among raw egg, various kinds of cooked eggs, bread and confection. Among cooked eggs, scrambled egg was considered to be the best OFC material, because the OVA/OM ratio was nearest to that of raw egg, although significant reduction of antigenicity of OVA was observed. On the

contrary, boiled egg was considered to be unsuitable for OFC material because of the remarkable reduction of OVA (<1/1000 of that contained in scrambled egg). Even if a patient passed OFC with a boiled egg, the patient may show allergic reaction with an egg bolo, which contains more amount of OVA than a boiled egg. Bread and confection also can be good OFC material in patients with solitary egg allergy. As for milk allergy, the best OFC material to apply the result for dietary counseling was skim milk, because BLG/casein ratio was nearest to that of cow's milk.

Conclusion: Quantitative evaluation of antigenicity at antigen component level in the selection of OFC material is essential to pursue dietary counseling aiming at tolerance safely.

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Impact of food eviction on the nutritional status and adequacy of nutritional intake on children with food allergy

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In food allergy, restrictions imposed by eviction of offending food allergen may compromise the nutritional needs of children.

We aimed to evaluate the nutritional status and adequacy of nutritional intake of children with food allergy (FA) in specific eviction.

This is a case-control study of children on food eviction. Participants with food allergy were matched by gender and age with healthy subjects. Assessments included: anthropometric assessment, including target height, with classification according to percentiles of the Centers for Disease Control and Prevention; assessment of nutritional intake by 24-h dietary recall, nutritional analysis by Food Processor SQL software, and compared with the Institute of Medicine Dietary Reference Intakes (DRIs) for age and gender, namely by Estimated Average Requirement (EAR) – nutritional intake below to 67% of DRI was considered inadequate; quality of life assessment in relation to FA (QLVFA); and collecting socio-demographic characteristics, physical activity and clinical information. Descriptive analysis included mean (SD) and proportions (%). Differences between groups were determined by hypothesis tests, namely *t*-test, one-way ANOVA and chi-square.