



**#698** Abstract

## **Nutritional status in children with non-IgE mediated gastrointestinal food allergy: the impact of nutritional counseling provided by a multidisciplinary team**

Food allergy / Food allergy: management

**Luzzetti A.**<sup>1,2</sup>, Carucci L.<sup>1,2</sup>, Capasso P.<sup>1</sup>, Giglio V.<sup>1,2</sup>, Voto L.<sup>1,2</sup>, Coppola S.<sup>1,2</sup>, Nocerino R.<sup>1,2</sup>, Berni Canani R.<sup>1,2,3</sup>

1. Department of Translational Medical Science, University of Naples Federico II, Naples, Italy
2. ImmunonutritionalLab at the CEINGE-Biotecnologie Avanzate s.c.ar.l. University of Naples Federico II, Naples, Italy
3. European Laboratory for the Investigation of Food-Induced Diseases, University of Naples Federico II, Naples, Italy

### **Background**

Non-IgE mediated gastrointestinal food allergies (non-IgE-GIFA) could have a negative impact on the nutritional status as consequence of inappropriate elimination diet and gastrointestinal tract dysfunction. We investigated the nutritional status in children with non-IgE GIFA at diagnosis and after 12 months (mo) follow-up.

### **Method**

Prospective study involving children with non-IgE-GIFA diagnosed according to standard criteria consecutively observed at a tertiary center for pediatric allergy (both sexes, aged <36 mo, 12 mo follow up after the diagnosis). Soon after diagnosis, children received a nutritional counseling by dietitians specialized in pediatric food allergy. Nutritional status variables (weight-for-age, height-for-age, weight-for-height, and body mass index) were analyzed at baseline and then after 12 mo follow-up.

### **Results**

A total of 100 subjects were included in the study: 58% male, mean age ( $\pm$ SD) 8.5 (8.8), 80% with cow's milk allergy. Non IgE-GIFA manifestations were: food protein-induced enteropathy, FPE (44%), food protein-induced enterocolitis syndrome, FPIES (11%), food protein-induced allergic proctocolitis, FPIAP (18%) and food protein-induced motility disorders, FPIMD (27%). At diagnosis, 8% of subjects were underweight (6 FPE, 2 FPIMD), 7% were stunted (4 FPE, 2 FPIMD, 1 FPIAP), 20% were malnourished (13 FPE, 5 FPIMD, 1 FPIAP, 1 FPIES). An improvement in all nutritional status variables was observed at 12 mo follow up, where the rate of underweight subjects was reduced to 1%, stunted was reduced to 3% and malnourished was reduced to 2% ( $p < 0.0001$ ).

### **Conclusion**

Non-IgE-GIFA, and in particular FPE, have a negative impact on the nutritional status of pediatric patients. The nutritional counseling is able to positively modulate the nutritional status of these children.