Satellite Symposium




Dietary Prevention and Management of Allergies in Childhood – an Outlook Into the Future

Tuesday, 6 December 2011
10:45 am – 12:15 pm
Cancún Center Conventions and Exhibitions | Cozumel Room 2
Presented during the
XXII World Allergy Congress
in Cancún México

Nestlé Nutrition Institute

Program

Oral Tolerance Induction: Are we any Closer to a Cure for Food Allergy?

Prof. Mimi Tang

Department of Allergy
and Immunology
Royal Children's Hospital
Melbourne, Australia

Tuesday, 6 December 2011
10:45 am – 12:15 pm

Chairperson:

Prof. Dr. Ferdinand Haschke, Switzerland
Head of Nestlé Nutrition Institute

Speakers:

Oral Tolerance Induction: Are we any Closer to a Cure for Food Allergy?
Professor Mimi Tang | Australia

Treatment and Management of Severe Cases of Food Allergy
Dr Ralf G. Heine | Australia

Nutrition in Allergic Children: Recommendations and Guidelines
Professor Christophe Dupont | France

Current management of food allergy involves strict avoidance, education on the recognition and management of allergic reactions, and carrying an adrenaline auto-injector. This approach is burdensome and associated with a reduced quality of life. Patients with food allergy would benefit greatly from a treatment that could achieve long-term tolerance. Recent studies have shown that oral immunotherapy (OIT) can induce desensitization and modulate allergen specific immune responses; however, it remains uncertain whether OIT can induce long-term tolerance. Modification of OIT by increasing the maintenance dose, prolonging treatment duration, or addition of an immune modifying adjuvant may offer improved tolerance induction. Allergic reactions during OIT are common, although severe reactions are less common. Therefore, OIT should be performed in specialist centers under close medical supervision, and would ideally be conducted as part of ongoing research studies. OIT holds promise as a novel approach to the management of food allergy.

Treatment and Management of Severe Cases of Food Allergy

Dr. Ralf C. Heine

Department of Gastroenterology & Clinical Nutrition
Department of Allergy & Immunology University of Melbourne / Murdoch Children's Research Institute
Royal Children's Hospital, Melbourne, Australia

Objectives

This lecture will provide an overview of

- Multiple non-IgE-mediated food allergies in infancy
- Eosinophilic oesophagitis in infants and children
- Diagnostic evaluation of patients with complex food allergies
- Therapeutic decision points in patients with multiple food allergy or eosinophilic oesophagitis
- Key issues in the nutritional management of children with complex food allergies

Summary

While IgE-mediated food allergies are generally well understood, the management of patients with non-IgE-mediated food allergies still poses significant diagnostic and therapeutic dilemmas. The absence of clear diagnostic markers often delays the recognition of non-IgE-mediated gastrointestinal allergic manifestations and may lead to adverse nutritional outcomes, including protein-energy malnutrition, feeding difficulties or specific micronutrient deficiencies. The syndrome of multiple food allergy (MFA) of infancy is characterised by adverse immunological reactions to food proteins in breast milk, standard infant formulas and even simple weaning foods. Infants with MFA are at risk of severe nutritional and behavioural complications if not managed appropriately with amino acid-based formula and specific elimination diets. The often complex nutritional requirements of these infants should be supervised by a dietitian, with close follow-up of growth parameters. Eosinophilic oesophagitis (EOE) in children is a recently recognised gastrointestinal allergic condition associated with similar complexities. The role of food allergies in EOE is thought to be significant, however, the characterisation of underlying IgE-mediated and non-IgE-mediated food allergies in the individual patient remains difficult. Skin prick testing and atopy patch testing may be useful tools in identifying food allergies in patients with EOE. The exact diagnostic allergic evaluation usually relies on multiple trials of food elimination and re-challenge, in combination with multiple gastroscopies and histological examination of oesophageal biopsies. In patients with EOE, elemental or targeted elimination diets have been shown to be effective but may be poorly tolerated in the long term. Problems with adherence to broad-based and complex elimination diets may ultimately lead to poor disease control, progressive oesophageal dysmotility, dysphagia, strictures and poor growth. This lecture will illustrate important aspects regarding the difficulties and complexities in the diagnosis and nutritional treatment of infants and children with multiple food allergies or EOE.

Nutrition in Allergic Children: Recommendations and Guidelines

Prof. Christophe Dupont

Department of Gastroenterology and Nutrition
Functional investigations, food allergy and ambulatory digestive disorders
Hospital Necker - Enfants Malades, Paris, France

Feeding children with food allergies rely on some common principles, with differences according to foods and ages at which symptoms appear.

Cow's milk protein allergy (CMPA) bears a specific status since it occurs at an age where cow's milk based formulae represent the only food ingested by the child. Several reviews have been devoted to this entity, including one by the Committee of Nutrition of the French Society of Pediatrics (Dupont et al, Br Med J, 2011). The diagnosis of CMPA requires first the suspicion of diagnosis based on symptoms described in the history, and second the elimination of cows' milk proteins (CMP) from the infant's diet. Without such rigorous analysis, the elimination of CMP is unjustified, and sometimes harmful. The elimination diet should be strictly followed, at least until 9-12 months of age. If the child is not breastfed or the mother cannot or no longer wishes to breastfeed, the first choice is an extensive cows' milk hydrolysate (eHF) of efficacy proven by scientifically sound studies. If it is not tolerated, an amino acid formula is warranted. Rice protein eHF can be an alternative to CMP-based eHF. Soy protein infant formulae are also a suitable alternative in infants >6 months, after establishing tolerance to soy protein by clinical challenge.

CMPA usually resolves during the first 2 to 3 years. However, the age of recovery varies depending on the child and the type of CMPA, especially whether it is IgE-mediated or not, with the former being more persistent. Once the child reaches the age of 9-12 months, an oral food challenge is carried out in the hospital ward to assess the development of tolerance and, if possible, to allow for the continued reintroduction of CMP at home. Some children with CMPA will tolerate only a limited daily amount of CMP. The current therapeutic options are designed to accelerate the acquisition of tolerance thereof, which seems to be facilitated by repeated exposure to CMP.

Apart from milk, any food may be responsible for food allergies, but few protein families account for the vast majority of allergic reactions: egg, wheat, soy, peanut, tree nuts, fish and shellfish. Feeding children with those food allergies rely on the same principles as for CMPA: 1/ ensuring a nutritionally adequate diet; 2/ reintroducing the offending food as soon as possible following oral food challenges under medical supervision; 3/ using modified forms of the food to improve their tolerance (cooking eggs at high tempreture, in a oven, allows it to be tolerated by most egg allergic patients); 4/ determining which level of food is tolerated without clinical significance. Risks and constraints however vary with the food and the allergic mechanism. For patients with non IgE mediated wheat allergy, the level of tolerance is the main constraint. For the child allergic to peanut, avoiding any accidental exposure is the only real life challenge.

Among other, ensuring an ideal vitamin D status, if necessary through oral supplementation seems essential regarding the role of this vitamin in the development of immunity and of allergy. The role of probiotics in children with already overt food allergies seems not proven at the moment.

www.nestlenutrition-institute.org