Challenges of managing multiple food allergies

Content: Julie Wang, MD and Michael Young, MD will discuss the diagnosis and management of children with multiple food allergies. Strategies for management will focus on the many difficulties facing these children including how to maintain adequate nutrition for growth and development and how to provide opportunities for the development of eating skills on a limited number of foods. Comprehensive management is needed to prevent common problems such as inadequate growth and poor eating competency.

Outline:
Multiple food allergies
- 2.4% of all children in US; 30.4% of food allergic children in US.[1]
- Children with multiple food allergies have greater odds of severe reactions.[1]

Diagnostic challenges
1. Getting a good history is essential
2. Prick skin test
   a. NPV >95% (negative skin test essentially excludes IgE-mediated food allergy).
   b. However, PPV is <50%, thus an isolated positive test is not definitive for food allergy, but in conjunction with a suggestive history, the PST can serve to confirm the diagnosis [2]
3. Intradermal testing associated with systemic reactions so not recommended [3].
4. Serum IgE testing
   a. ImmunoCAP is the only one that has been systemically evaluated in predictive value studies, tests show that IgE tests are not all equivalent [4]
   b. cross reactivities can give positive IgE results that may not be clinically relevant; component testing may be helpful for peanut
      i. birch – peanut and hazelnut
      ii. grass – wheat
      iii. dust mite/cockroach – shellfish

Nutritional, feeding and social risk factors [5-10]
   a. Evaluate the nutritional adequacy of the current diet. Ensure it is not limited beyond what those foods need to be avoided
   b. Understand the nutritional role of avoided foods and options for nutrient dense substitutes. Nutrition support if necessary - Hypoallergenic supplemental formulas and/or MVI [11]
   c. Resources to find allergen free foods and ingredients
2. Feeding risk factors: Provide a variety of flavors and textures for feeding skill development and food acceptance if needed (i.e., corn meal, corn pancake, corn pasta, corn bread, corn chips, corn flakes, corn puffs, popped corn, polenta - many textures with one food)
   a. Focus on the foods that can be eaten and enjoyed - teach how to prepare meals and snacks from whole foods - provide resources
3. Social risk factors: Discuss FA management issues such as grocery shopping, label reading, cross contact issues, restaurant meals, management in schools/camps, etc. [12]

References: