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Unmet needs in Food Protein Induced Enterocolitis Syndrome (FPIES)

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When searching for the term “FPIES” using PubMed, the first line that appears is starred with the statement “Did you mean: *flies*.” This clearly illustrates the paucity of knowledge regarding this topic. Although food protein induced enterocolitis syndrome (FPIES) was first described over 50 years ago, there continues to be poor understanding of this entity. In this issue of Current Opinion in Allergy and Immunology, we summarize the current understanding of FPIES and highlight the areas which would benefit from significant scientific advancement.

First, a better understanding of the epidemiology of FPIES is essential to know the impact of this disease. FPIES is not as rare as previously thought¹, but how common this is and reasons for the apparent regional variations are not clear at this time. Does the recent increase in the number of reported cases reflect an increase in prevalence or simply an increase in awareness of the condition? Although the clinical manifestations for FPIES have been described², developing a consensus definition of this entity with clear diagnostic parameters is still necessary, not only for accurately determining how many children are affected, but also to serve as a much needed guide for practitioners to make a correct diagnosis³. Certainly, the identification of biomarkers specific for FPIES would aid in confirming cases. Several hypotheses have been proposed for the pathogenesis of FPIES, and no immunological mechanism is free from suspicion: T-cells, B-cells, antibodies, neutrophils, platelets and/or eosinophils have been implicated. In addition to these unmet needs, lack of clarity concerning the pathophysiology underlying the symptoms and the spectrum of disease has contributed to the delayed diagnosis for many of these patients. By having clear diagnostic parameters and increasing awareness, affected individuals will start appropriate management in a much more timely manner.

More is unknown than known about the natural history, risk factors for disease onset and progression of FPIES⁴. With increased knowledge in these areas, we can offer better care for our patients with appropriately timed introduction of at-risk foods and oral food challenges to determine when tolerance has been achieved⁵. By limiting the duration of dietary

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restrictions to the minimum necessary, we can reduce the nutritional impacts of an avoidance diet.

Another aspect needing further research is the relationship between FPIES and IgE-mediated conditions and how FPIES differs from other disorders presenting with similar symptoms⁶. There is also limited literature on complex, multi-food FPIES. These gaps in knowledge result in notable unmet needs for nutritional management. We must better understand the various phenotypes of FPIES in order to provide suitable nutritional recommendations to ensure the health of these children⁷.

Clearly, there are many unmet needs in this field that require urgent attention. The reviews provided in this issue should serve not only to summarize the current understanding of FPIES, but to also increase the awareness of these knowledge gaps and encourage efforts to fill them. By knowing where we currently stand, we can plan for research endeavors that will lead to improved diagnostic parameters and management plans for our patients with FPIES.

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