Food protein-induced enterocolitis syndrome from the parent perspective

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Purpose of review

To describe the obstacles that parents face when caring for a child with food protein-induced enterocolitis syndrome (FPIES) and discuss initiatives of key importance to the FPIES community.

Recent findings

Findings from a previous survey indicate that 80% of pediatricians have little or no knowledge of FPIES, suggesting that awareness is severely lacking among frontline providers. A preliminary study also indicates that the condition can have a profound effect on quality of life for patients and families.

Summary

FPIES is a rare but growing condition that poses significant personal and familial challenges for parents before and after diagnosis. Increased efforts from the medical community are needed to raise awareness among medical providers, establish improved criteria and guidelines for diagnosis and management, increase understanding through research, and offer parent information and support at every stage.

Keywords

food allergy, food protein-induced enterocolitis, parent experience

INTRODUCTION

We write this article as parents of children with FPIES. One author has a 5-year-old boy still living with FPIES. The other author has two boys with FPIES, aged 1 and 3. Both of us have experienced the baffling symptoms, delayed diagnosis, lack of answers, and daily struggles to feed our children. Collectively, our children visited 14 specialists and pediatricians before arriving at the diagnosis.

In its guidelines for diagnosing and managing food allergy, the U.S. National Institute of Allergy and Infectious Diseases (NIAID) defines FPIES as:

...a non-IgE-mediated disorder that usually occurs in young infants. Symptoms include chronic vomiting, diarrhea, and failure to gain weight or height. When the allergenic food is removed from the infant's diet, symptoms disappear. Milk and soy protein are the most common causes, but some studies report reactions to rice, oat, or other cereal grains [1].

We write this article to voice the collective challenges and concerns of a community we have come to represent as founding board members for the International Association for Food Protein Enterocolitis (www.IAFFPE.org), the leading advocacy

group dedicated to bridging the gaps that exist between FPIES patients, families, and physicians. The FPIES community is endlessly resilient and hopeful; however, it is also desperate for and deserving of answers to better navigate this condition.

When surveying our international community, we learned about the greatest personal and familial challenges that parents face (Table 1). Whereas each family has its own unique story to tell, these themes play out again and again across the globe. This article is a call to action to address the unanswered questions of our community, to raise awareness of the obstacles FPIES parents encounter, and to promote greater understanding and involvement

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KEY POINTS

- Parents living with FPIES experience significant obstacles in pursuit of a diagnosis and in the ongoing management of the condition.
- The FPIES community would benefit from increased awareness in the medical community, clearer criteria and guidelines (including better differentiation of acute and chronic presentations), and an increase in active research efforts.
- Credible information and partnership between parents and providers are crucial to navigate FPIES at every stage, from initial diagnosis to daily management and determination of its natural history.

in the medical community for this rare but growing disorder.

LACK OF AWARENESS IS 100% CURABLE

A recent poster from the American Academy of Allergy, Asthma & Immunology (AAAAI) Annual Meeting surveyed 86 physicians to assess their knowledge of FPIES:

One-fifth of responders indicated a full understanding of FPIES, 56% reported a limited understanding and 24% indicated they had never heard of FPIES. . .Gastroenterologists (57%) and allergists (32%) made the majority of FPIES diagnoses [2].

The general lack of awareness among medical providers is concerning. Prior to diagnosis, most families experience a significant disbelief from their pediatricians about their children’s symptoms. They then make the rounds to a series of doctors, all in an effort to put a name to what is happening to their children, who often experience several reactions before an FPIES diagnosis is considered

[3,4,5]. Too frequently, they learn about FPIES from the Internet, not from their physicians.

With more emphasis on education and training, we can reach a wider range of pediatricians, specialists, emergency room doctors, and allied health providers. In general, non-IgE allergies are underrepresented in the food allergy dialogue. In several national and international medical meetings, FPIES is not reflected in presentations and workshops. This will not remedy the lack of providers able to identify and make appropriate referrals for this disorder.

Pediatricians need to have FPIES in mind when a child presents with these symptoms. They also need to be able to make more appropriate referrals, as most patients present to gastroenterology before allergy. In July 2013, IAFFPE created an FPIES fact sheet that was distributed to over 67 000 pediatricians through the American Academy of Pediatrics (AAP). It was the first substantial effort to reach front-line providers and educate them about FPIES. The insert was well received; however, further action is needed to continue this educational initiative.

POORLY DEFINED CRITERIA AND LIMITED GUIDELINES

Misdiagnosis is frequent with FPIES [3,4,5,6]. Parents are often told their children have a viral infection when they are actually experiencing an acute reaction. This can lead to a worse prognosis for children, with continued symptoms of vomiting, diarrhea, and possibly shock. When this scenario repeats itself again and again, the family is burdened with the additional stress, anxiety, and frustration of finding a provider who can provide assistance and adequate care.

For non-IgE allergies such as FPIES, a clinical diagnosis is the only tool available [5]. Providers and parents must both rely on trial and error. This is a painstaking, anxiety-provoking process for the

Table 1. Unmet needs

Lack of FPIES awareness among providers	Lack of active funding to support initiatives and studies
Limited definition of disease	Financial burden to pay for expensive and often uncovered elemental formula
Lack of diagnostic and treatment guidelines	Lack of collaboration with alternative providers many families turn to due to lack of support and available treatment
Obstacles and delay in finding diagnosis	Poor quality of life
Poor definition and understanding of acute versus chronic presentations	Nutritional, social, and emotional burdens that come with avoidance
Poorly understood prevalence	
Lack of collaborative care among providers	
Limited representation in literature	

family. We witness many children undergoing extensive testing, countless visits with multiple specialists, and unnecessary hospitalizations. We often speak with these families and offer support and empathy throughout this process. They experience an enormous amount of emotional and financial burden and are often left without clear, definitive answers or guidance.

For oral food challenges (OFCs), trials require strategic planning, preparations in case of a reaction, and the presence of additional support. Traveling to hospitals that practice FPIES-specific protocols, staying in nearby hotels, and finding care for other family members can all be very costly for families. Further, OFC in this population can be very frustrating. Due to the delayed nature of reaction, parents are told it is too time-consuming and costly to keep their children in the hospital for continued observation, resulting in continued exposures at home without medical supervision.

Formal diagnostic and treatment guidelines would have a significantly positive impact. To this end, IAFFPE has partnered with AAAAI's Adverse Reactions to Food Committee to develop a formal consensus of diagnostic and treatment guidelines. This is a multidisciplinary international effort in its first full year of development. We invite providers with research interest, clinical experience, and passion for the condition to join in this effort.

CHRONIC FOOD PROTEIN-INDUCED ENTEROCOLITIS SYNDROME: THE MEDICAL DEBATE

One of the greatest causes for confusion and frustration in the parent community surrounds the definition of chronic FPIES and whether it is representative of the condition [7]. Whereas acute reactions are more commonly seen and documented in literature, we recognize and highlight the lack of literature representing chronic reactions; this contributes to the dismissal many families face from their physicians when describing symptoms [5^{8,9}]. The criterion for chronic reactions is still evolving and often misunderstood. Many providers have speculated whether this is a separate disease entirely or just a different presentation.

Explorative efforts are urgently needed to examine and define the differences between acute and chronic manifestations and whether they are both representative of FPIES. There also seems to be an overlap of secondary conditions that mimic FPIES (discussed in detail in an article by A. Fiocchi on pp. 246–254 in this issue of *Current Opinion in Allergy and Clinical Immunology*), causing further confusion. Patients and families can be better

supported by making appropriate referrals and ensuring an outcome in their efforts to obtain a diagnosis. We see families who become discouraged and decide to manage the condition without the guidance of medical providers or who turn to unproven alternative approaches. We have also seen a rise in unfounded Munchausen by proxy claims against parents of children who are later diagnosed with FPIES.

We need an improved dialogue about the disorder and less dismissal of symptoms. As Philip E. Putnam posits in 'The mother of all food allergies', 'It is becoming increasingly clear that immunologic reactions to multiple foods can present in more subtle fashion than previously recognized and must be included in the broader differential diagnosis for a variety of symptoms' [10].

We urge institutions with larger cohorts of FPIES patients to publish their findings so that a greater landscape can be established for understanding this disorder and clearer, more accurate guidelines can be defined for both representations.

CALLING ALL RESEARCHERS

A basic PubMed search for IgE allergy produces 42917 results. The same search for eosinophilic esophagitis yields 1111 results. An FPIES search produces 117 results. The available literature on FPIES is limited, and most published studies reflect case reports with very small representation.

A shortage of answers creates a confusing picture for affected families, who are frustrated by the lack of defined outcomes and a poor understanding of the burdens they face. In particular, there is a strong need to study the quality of life for both caregivers and patients affected by FPIES. Other needs include a clearer picture of natural history, epidemiology, prevalence, and pathophysiology of the disease.

Our community would also benefit greatly from more investigators interested in exploring FPIES. We call on our medical institutions and investigators to publish findings within their centers and help provide a more accurate representation of FPIES. Funding is an obstacle, but the greater challenge is the limited number of providers aware of this disease and the lack of active research. Until FPIES is 'on the map', requests to the National Institutes for Health (NIH) for impactful funding will be denied.

To encourage formal recognition of FPIES, IAFFPE worked to establish an official International Classification of Disease (ICD-10) code. With help from our community, this code (K52.21) was approved in June 2013 and will take effect when ICD-10 is initiated. This effort advanced the disease by making it visible and easier for researchers to

track. The next steps are to partner with our providers to utilize this code and encourage further research.

In addition, IAFFPE is well into the process of establishing a multicentered patient registry. This initiative will help centralize patient information for interested researchers and decrease the bias of self-reported data by ensuring all patients entered have been diagnosed by a provider familiar with the disorder. Once launched, we invite the collaboration of providers to contribute data and support research efforts.

SUPPORT AND MANAGEMENT AT EVERY STAGE

In the diagnosis phase, receiving credible information helps parents cope with the situation of having a child with FPIES. Upon diagnosis, some parents can experience a great deal of emotional upheaval, including anger, guilt, and feeling overwhelmed. For others, the confirmation of a diagnosis is a profound relief after a long period of doubt and confusion. Above all, parents want clear, reliable information about FPIES, and a plan to move forward. Concrete advice is needed on how to carry out food trials, what foods to trial when, what constitutes a food 'fail', and what steps to take during a reaction. It is empowering for the families when the providers emphasize the positive aspects about the diagnosis and offer strong support at every stage of management.

FPIES is a parent-managed disease in many ways. The responsibility for feeding a child with FPIES can be scary and confusing. They often feel they lack the proper knowledge, and, at first, feeding and food trials consume all their time and energy. Feeding activities that cause a child pain or discomfort are particularly difficult to carry out. Couple that with the constant monitoring of a child's condition for any signs and symptoms that might appear. Perhaps most difficult, parents must balance the desire to add new foods to the child's diet with the desire to avoid another FPIES reaction.

Parents value providers who can communicate with them in an empathetic way, showing respect for their feelings and daily challenges. Parents in our community have vivid memories about their interactions with medical providers. A positive experience, supportive guidance, and open dialogue have a lasting impact and assist families in healthy coping. Above all, receiving credible, practical information about FPIES from the start is crucial to parents as it helps organize their thoughts and grasp the road ahead.

From the parent perspective, there is the need for centralized, collaborative care, including FPIES centers with supportive services as a primary focus. Pairing medical expertise with access to allied health providers would significantly support the needs of our community. It would be ideal for these FPIES centers to include an allergist, dietician, and a social worker. Referrals for a gastroenterologist, occupational therapist, and feeding team can also assist in collaborative care.

We also recognize the growing interest in complementary and alternative approaches within our community. From the parent perspective, it is extremely valuable when a medical provider enters the dialogue with complementary/alternative providers when solicited by the family to ensure the best quality of care. This leads to a more cohesive team and a helpful, safe collaboration between providers on behalf of the patient. Open dialogue and flexibility are the most powerful tools you can offer your FPIES patients and families.

FOOD PROTEIN-INDUCED ENTEROCOLITIS SYNDROME IN THE LONG TERM

Ten years ago, eosinophilic esophagitis (EoE) was considered to be a disease of early childhood, outgrown by age 3. Through collaborative efforts of researchers and patient organizations, today much more is known about EoE and standards for diagnosis and management have changed. We believe the same may prove true for FPIES. Whereas we are able to define many aspects, there is still much to learn and understand.

Over time, the need for information and for keeping in touch with providers does not disappear or diminish. As a child grows and enters new developmental stages, other dilemmas arise that parents must resolve. Information and views concerning the natural history of FPIES and clear protocols for OFCs, in particular, are needed from providers. It has been asserted that a majority of children outgrow FPIES by age 3 [11]. For the majority, this holds true, but some children in our community have persistent FPIES in the school-age years and even teenage years [5¹¹,11]. Without prevalence data, the true natural history of FPIES simply cannot be known.

Whether the child is avoiding one food or 20, a limited diet can have a major impact on social, emotional, and physical development. Quality of life is greatly affected. Preliminary data from a survey distributed by IAFFPE are proving this is more so with FPIES than with any other food allergy [12]. Families face a very real dilemma: do we retrial the food and risk an acute reaction, or do we avoid the food and cope with the impact? It is a heavily

weighted decision and a common one for FPIES families.

After years of living with FPIES, many parents have expert knowledge and skills in managing the condition. They also have the willingness and ability to participate in discussions and decision making about the management of FPIES. It is important for providers to show they respect the insights that experienced parents have in dealing with FPIES. In addition, without a solid, trusted team in place, these parents can find it very difficult when faced with a 'revolving door' of personnel who are not well informed about their children, FPIES, or its management. It can be an overwhelming task to repeatedly educate providers about their children and the specifics of their cases. Parents seek a lasting partnership with providers, which is based on mutual trust.

CONCLUSION

We call on educators, researchers, and providers to increase awareness of FPIES through your work and efforts. The FPIES community needs universal, clear guidelines for diagnosis, and management. It also needs more research on natural history, pathophysiology, and biomarkers for FPIES to optimize management of the affected patients. When more providers can identify and manage FPIES, fewer parents will struggle to find knowledgeable professionals who can support them.

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Conflicts of interest

There are no conflicts of interest.

REFERENCES AND RECOMMENDED READING

Papers of particular interest, published within the annual period of review, have been highlighted as:

- of special interest
- of outstanding interest

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