FOOD PROTEIN-INDUCED ENTEROCOLITIS SYNDROME (FPIES)

allergy foundation south africa
www.allergyfoundation.co.za

DEFINITIONS

Food allergy is divided into the more common "typical"IgE-mediated food allergies, and the rarer non-IgE mediated food allergies. Non IgE mediated food allergies usually appear a few hours or more after eating a food, whereas IgE mediated food allergies occur very quickly after eating the food.

Food protein induced enterocolitis syndrome (FPIES) is a severe form of non IgE mediated food allergy that affects the bowels and causes severe diarrhea and shock. FPIES is not anaphylaxis and does not require use of adrenaline / epinephrine. However, some children may also have IgE allergies/symptoms (hives, swelling, difficulty breathing, anaphylaxis) in addition to FPIES. If the child has these allergies as well, see the pamphlets on IgE mediated food allergy and anaphylaxis.

WHAT ARE THE SYMPTOMS?

The symptoms of FPIES are primarily severe vomiting and diarrhoea that can be mistaken for acute gastrointestinal infection or food poisoning. The patient may look very ill and dehydrated, resembling anaphylactic shock or acute severe infection.

The first episode usually occurs within 2 to 4 hours of ingestion of the trigger food but may be delayed for several hours, and it progresses rapidly in an alarming manner. A typical episode comprises repetitive large volume vomiting, pallor, followed by diarrhea, leading to lethargy and dehydration.

In mild to moderate cases, frequent exposure to the causative food leads to chronic symptoms, irritability, and poor weight gain.

Treatment is aimed first at rehydration and treatment of shock. Ondansetron, a specific type of anti-vomiting drug and intravenous steroids are the main treatments for the underlying mechanism.

WARNING SIGNS OF SHOCK

If profuse vomiting occurs, patients with FPIES can have dehydration and shock.

Dehydration may cause decreased urination, inability to make tears and dry lips.

More severe signs of shock include being weak or floppy, an increased heart rate with pulses that may be difficult to feel, cool hands and feet, change in behaviour (anxiety, sleepiness or confusion), dizziness and blueness of the hands or lips.This is a medical emergency requiring immediate medical attention.

CAUSATIVE FOODS

FPIES affects primarily young children, particularly during infancy with the early introduction of additional foods, but can also occur in adults. In infants common triggers are cow's milk and soy.In older children, rice, potato, and egg are the most common. In adults, seafood and molluscs may cause FPIES.

The quantity of food that provokes symptoms varies widely. In some infants, symptoms may be provoked by very small food quantities, even traces of food that touched the mouth.

DIAGNOSIS

The diagnosis of FPIES is based mostly on the history of typical symptoms, in the absence of fever or suspected food poisoning. Often, other possible causes of the symptoms are considered first, such as local or systemic infection, metabolic diseases, and gastrointestinal disorders. FPIES may not be identified until more than one episode happens.

LABORATORY FINDINGS

Laboratory tests are used to assess the severity and complications of dehydration and shock or to look for other diseases that can mimic FPIES. Unlike common allergic diseases, allergy skin tests or blood testing are not helpful because FPIES has a different mechanism.

Definite identification of the trigger food can be made from a consistent history but may also require a hospital based food challenge for each suspected food. Food challenges for FPIES may cause an acute episode and should only be performed by an experienced specialist and under close observation in hospital and with an IV line in place. The patient should be kept under observation for at least four hours after a negative challenge and overnight stays are often required.

Once the culprit food is identified, strict avoidance should be followed. In-hospital challenges will also be required if a child might be outgrowing an FPIES reaction as reintroduction of foods at home is not safe.

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The FPIES Diet

Many children have only one trigger food and are able to eat a normal diet otherwise. Others must avoid a few trigger foods, but others have only a few safe foods that they can eat, and rarely some children do not have any safe foods!

Although it is likely that there are safe foods for all FPIES children, the process of finding them may take time and lots of careful effort. Your doctor or dietician should guide you as to which foods to try and how, to make sure that any additional trigger foods are identified safely.

PREVENTING AN FPIES REACTION

Learn How to Read a Label for Food Allergens

- Some food allergens may be hidden ingredients in a food and can be found in flavourings, colourings, additives. If unsure, do not give the food in question.

Prevent Cross-Contact

- Never share dishes, utensils, cups, water bottles, or food. Wash dishes, utensils, cups, etc. thoroughly, with soap and water.
- Clean hands well with soap and water or hand wipes before feeding the child and/or after you eat
- Clean tables and eating surfaces thoroughly with soap and water or household cleaners/wipes. Ensure that crumbs or other pieces of food are removed from the floor or within child's reach.
- Other sources of exposure: Anything that comes in contact with a food allergen, including sponges, dishtowels, aprons, food that touches the allergen. Also be aware that beauty and hair products, lotions, hand sanitizer, may contain allergens.

PREPARING FOR AN FPIES REACTION

- Be prepared by having an ER Letter available to provide to emergency staff, which offers treatment guidelines for a severe FPIES reaction. Review with the family how they would like you to address emergency situations.
- If the child has accidentally eaten a food—even if there is currently NO REACTION—call the parent immediately.
- Call the ambulance immediately if the child has any of the following symptoms: profuse vomiting, diarrhoea, lethargy, shock. Municipal: 10177; ER24: 084 124; Netcare 911: 082 911.
- Tell them the child is having an allergic reaction called FPIES and needs IV fluid to prevent/ treat dehydration and possible shock.

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FAMILY CARE

Imagine something as simple as a bite of rice cereal sending your child into a fit of vomiting so violent that he/she must be rushed to the ER. This is the life of an FPIES child. Imagine a day-to-day reality of not knowing which foods are safe to feed your child and which will cause harm.

The FPIES family may become overwhelmed with daily challenges of managing their child's condition. The many trials parents and caregivers face include:

- Slowly, methodically trialling foods and trying to recognize the symptoms of a reaction.
- Helping their child through the pain, discomfort, and lingering effects of a reaction.
- Keeping their child safe from all foods that are unsafe or unknown.
- Helping their child cope with being denied the basic human desire to eat food.
- Lack of awareness of doctors and laypeople, leading to difficulty accessing care and less chance of personal support

An FPIES child often looks healthy on the outside. It is what is going on inside and the cost of staying healthy that is debilitating for the FPIES child and family.Patient support can help. Contact the Allergy Foundation of South Africa for up to date details of patient support groups and activities, and visit www.fpies.org.

INTERNATIONAL FPIES ASSOCIATION
I-FPIES