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Gut Feelings: Shifting the Focus from Restrictive Diets in Pediatric IBS

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Another day, another pediatric patient presents with recurrent abdominal pain. What may appear to be a benign clinical presentation can, in reality, represent a chronic condition that profoundly disrupts daily life.

Irritable bowel syndrome (IBS) affects approximately 14% of children and adolescents worldwide.[1] Beyond gastrointestinal symptoms, pediatric IBS significantly impairs quality of life, leading to school absenteeism, anxiety, and depression.[2] Most worryingly, however, current treatments often fall short of expectations, leaving physicians with limited tools to achieve symptom control.

The Parental Search for Solutions

In this therapeutic gap, many parents take matters into their own hands. The Low FODMAP (Fermentable Oligo-, Di- and Mono-saccharides And Polyols) diet (LFD) has emerged as a commonly adopted strategy, often initiated without professional guidance.

You and fellow pediatricians face a challenging intersection: balancing parental initiative with concerns regarding the safety and effectiveness of the LFD in a developing child. Anecdotal success stories from families along with expert opinions that conflict with established clinical guidelines further escalate your frustration.

Navigating these complex perspectives has been incredibly challenging—until now.

The Evidence Gap

At present, the evidence on the LFD in pediatric IBS is insufficient to inform routine clinical practice. Existing studies are characterized by key methodological limitations, including small sample sizes, short intervention periods, and poor assessment of FODMAP intake.[3]

Moreover, findings are inconsistent. A 48-hour LFD was shown to reduce the frequency of daily abdominal pain in children, compared with a typical American childhood diet.[4] However, over a four-week intervention period, the LFD was not found to be superior to a standard healthy diet in reducing abdominal pain intensity, frequency, or stool consistency.[5] To date, pediatric LFD research encompasses a total of just 111 children, providing low-certainty evidence for abdominal pain reduction in pediatric IBS.[6]

Given these inconsistent findings and the limited quality of such evidence, major pediatric societies do not currently recommend the LFD as first-line therapy for pediatric IBS.[6–8] Therefore, your instincts to avoid going down this road with patients are correct.

Assessing the Risks

The LFD poses several clinically relevant risks in children. Namely, restricting a wide range of fruits, vegetables, pulses, and dairy products reduces the intake of essential nutrients, including fiber, calcium, iron, and B vitamins.[6] During critical periods of growth and development, insufficient intake of these nutrients can impair growth, immune function, and cognitive and neurodevelopment.[3]

In particular, restricting soluble fiber intake may also impact the developing gut microbiota. Evidence suggests that the LFD can decrease *Bifidobacterium* abundance and reduce production of short-chain fatty acids (SCFAs), which are essential for immune maturation.[1,6] These effects are particularly concerning in children under the age of five.[9]

Equally important are the psychological implications of dietary restriction. More than 90% of children with IBS associate specific foods with symptom exacerbation.[10] Many engage in disordered eating behaviors in attempts to control symptoms, including skipping meals or inducing vomiting.[10] Additional dietary restrictions such as the LFD during childhood may intensify these behaviors and interfere with establishing a healthy relationship with food.[3]

When the LFD is Already Underway

When families have already initiated a LFD and wish to continue, structured supervision is essential. Referring these patients to a FODMAP-trained pediatric dietitian will ensure nutritional adequacy through appropriate food substitutions while reducing the risk of growth impairment or disordered eating. As such, it's also important that you actively discourage unsupervised dietary restriction of any kind among children.[3,6,7]

Evidence-Based Dietary Recommendations

The felt association between foods and symptoms is a strong motivator of dietary modification in children with IBS. This highlights the importance of clinician-guided, evidence-based dietary strategies that prioritize effective symptom management.

Alongside encouragement of a balanced and diverse diet, current guidelines support selected supplements as first- or second-line treatment options in pediatric IBS management:

- **Soluble fiber supplements** (e.g., psyllium, glucomannan, or hydrolyzed guar gum): Evidence supports efficacy in reducing abdominal pain intensity and frequency. By increasing intestinal fluid absorption and regulating bowel movements, soluble fiber can benefit children with both constipation- and diarrhea-predominant IBS.[7,8]
- **Probiotics**: *Lactobacillus rhamnosus* GG significantly reduces the frequency and intensity of abdominal pain, potentially by restoring gut microbial balance, enhancing the intestinal mucosal barrier and modulating the intestinal inflammatory response.[7,8,11]

Introducing The Gut-Brain Axis

Managing pediatric IBS effectively may require you to broaden patient- and parent-directed discussions beyond diet alone. Introducing families to the gut-brain axis, once an LFD is off the table, will help you explain the role of the enteric and central nervous systems in IBS.[1]

For example, in Gut-Directed Hypnotherapy (GDH), patients enter a relaxed, focused state that makes them more open to suggestions aimed at easing pain and improving gut function.[7,12] And in Cognitive Behavioral Therapy (CBT), children with IBS learn how stress and thoughts can affect their gut symptoms and practice tools to help regulate pain and distress.[8,11]

Both GDH and CBT have been shown to significantly reduce abdominal pain and improve digestive function and, as such, are strongly recommended in clinical guidelines.[7,8]

The "Golden Half Hour"

If families don't understand the role of the nervous systems in IBS, they may feel dismissed or stigmatized when referred to GDH or CBT for what they perceive as a physical problem.

That's why it's crucial that you use the time immediately following an abdominal pain assessment, referred to as "The Golden Half Hour", to validate the child's pain and provide education on IBS, explaining the gut-brain axis role.[13]

Once the gut-brain connection associated with a child's symptoms is better recognized and understood, families generally feel empowered to move away from restrictive diets like the LFD and become significantly more receptive to approaches such as GDH and CBT.[7,13]

From Restriction to Resilience

The LFD currently lacks sufficient evidence to support routine clinical use in children and carries notable risks. Without appropriate supervision, a LFD during childhood can contribute to nutrient deficiencies, microbiota disruption, and disordered eating patterns, which impair healthy development.

As a pediatrician, you play a vital role in redirecting families toward evidence-based management strategies, such as targeted supplementation, GDH, and CBT. Through tailored education and avoiding unnecessary dietary restrictions, you can help children manage their IBS symptoms with the aim of improving their long-term well-being.

Learn more about treating IBS in childhood in the ESPGHAN/NASPGHAN guideline.

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