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Irritable Bowel Syndrome (IBS) in Children and Adolescents

What does IBS mean?

Irritable bowel syndrome is a disturbance of bowel function that includes symptoms of abdominal pain or discomfort and altered bowel habit (change in frequency or consistency) – chronic or recurrent diarrhea, constipation, or both in alternation.

"Irritable bowel" refers to a disturbance in the regulation of bowel function that results in unusual sensitivity and muscle activity.

"Syndrome" refers to a number of symptoms and not one symptom exclusively.

How common is IBS?

A population based study of 507 middle school and high school students by Hyams et. al. indicated that 6–14% of the adolescent population note symptoms consistent with IBS. In the study, anxiety and depression scores were significantly higher for students with IBS-type symptoms compared with those without symptoms. Eight percent of all students had seen a physician for abdominal pain in the previous year. These visits were correlated with abdominal pain severity, frequency, duration, and disruption of normal activities; they were not correlated with anxiety, depression, gender, family structure, or ethnicity.

What are the symptoms of IBS?

In 1995, an international group of pediatric gastroenterologists gathered together to define the diagnostic criteria for functional gastrointestinal (GI) disorders in the pediatric population (published in 1999 as part of the larger Rome II Criteria).

The development of these diagnostic criteria was based on several underlying principles applicable to children.

Rome II Diagnostic Criteria for IBS in Children

In children old enough to provide an accurate pain history, at least 12 weeks, which need not be consecutive, of continuous or recurrent symptoms during the preceding 12 months of:

(1) Abdominal discomfort or pain that has two out of three, features:
  (a) Relieved with defecation; and/or
  (b) Onset associated with a change in frequency of stool; and/or
  (c) Onset associated with a change in form (appearance) of stool.
(2) There are no structural or metabolic abnormalities to explain the symptoms.

Symptoms that cumulatively support the diagnosis of irritable bowel syndrome:

- Abnormal stool frequency (for research purposes "abnormal" may be defined as greater than 3 bowel movements per day and less than 3 bowel movements each week);
- Abnormal stool form (lumpy/hard or loose/watery stool);
- Abnormal stool passage (straining, urgency, or feeling of incomplete evacuation);
- Passage of mucus; bloating or feeling of abdominal distension.

Children with IBS may also have headache, nausea, or mucus in the stool. Weight loss may occur if a child eats less to try to avoid pain.

Clinical Evaluation

A history that fits the Rome Criteria for a diagnosis of IBS, accompanied by a normal physical examination and normal growth history, are consistent with a diagnosis of childhood IBS. A nutritional history, assessing for adequacy of dietary fiber in those with constipation, as well as ingestion of sugars such as sorbitol and fructose in those with diarrhea, is often useful. Factors alerting the clinician to the possibility of disease other than IBS include night time (nocturnal) pain or diarrhea, weight loss, rectal bleeding, fever, arthritis, delayed puberty, and a family history of inflammatory bowel disease.

A limited laboratory screening for other conditions is frequently reassuring to the clinician, patient, and family for patients with persistent symptoms and may include a complete blood count, stool studies, and breath hydrogen testing or a trial of a milk free diet for lactose malabsorption.

Some Sugars Can Cause Diarrhea

The artificial sugar **sorbitol** is used as a sweetener. For example, it is often used to sweeten diet gums and candies. It has no calories, but is a known laxative if taken in sufficient amount. A glance at the ingredients of many confections or sweets will reveal the offending sugar. Mannitol is another sweet substance frequently found with sorbitol.

Fructose is a natural calorie-containing sugar found in fruit. It is one reason why large amounts of fruit can cause diarrhea. It is also naturally present in onions, artichokes, and wheat. It is used as a sweetener and may be found in candies, soft drinks and fruit drinks, honey, and preservatives and in sufficient amounts can cause diarrhea.

Treatment

Once there is a diagnosis of IBS, the treatment goals are to provide effective reassurance to the child and family, and to reduce or eliminate the symptom(s). The doctor must educate and reassure the child and family that although IBS causes discomfort it is not life-threatening and will not develop into another more serious condition. The presence or severity of the pain should not be disputed. A review of the current understanding of IBS and the exacerbating effects of stress and anxiety on the problem helps the child and family to understand why the pain occurs.
Psychosocial difficulties and triggering events for symptoms will be asked about and, if present, addressed.

Medications may be used – such as a tricyclic antidepressant, which in low doses acts as a pain reliever, or anticholinergics to help control intestinal cramping. However, effectiveness of these drugs in children is anecdotal and not supported by well-designed studies to confirm their efficacy. In those with constipation increased dietary fiber may be recommended. However, fiber is often associated with an increase in intestinal gas production, and may increase abdominal cramps and flatulence. Flatulence is especially embarrassing to the school-age child. Mineral oil may be a helpful adjunct, but use only as recommended by your child's physician.

In patients with symptoms that do not respond to treatment, endoscopic evaluation of the colon may be done. Irritable bowel syndrome may coexist with other conditions, such as inflammatory bowel disease (colitis or Crohn's disease). Tests can differentiate an inflammatory bowel disease from a functional GI disorder such as IBS.

References:

Drossman DA, et al. (Eds). Childhood functional gastrointestinal disorders. *Rome II the Functional Gastrointestinal Disorders.* Virginia: Degnon Assocs. Second Edition, 2000.

Hyams JS, Burke G, Davis PM, Rzepski B, Andrulonis PA. Abdominal pain and irritable bowel syndrome in adolescents: a community-based study. *J Pediatr* 1996 Aug;129(2):220-6

Caplan A, and Rasquin A. What's new in pediatric functional gastrointestinal disorders. *Digestive Health in Children*, IFFGD, Dec. 2002 Vol2 No4.

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