



# Pediatric Clips

**NURSING**

## *Chronic Constipation- Leslie Fitzharris, RN, MSN, CPNP*

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Pediatric Nursing Clips by Pediatric Advanced Practice Nurses at Dayton Children's provides quick reviews of common pediatric conditions.

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### CASE STUDY

Jack is a 6-year-old male with a one to two month history of soiling his clothes with stool. It is happening several times daily and varies from smears to a small amount of soft stool. He states that he is unaware of the soiling when it happens. He has a his-

tory of difficulty with bowel movements and his mother has noticed that his stools can be fairly large. She explains that he is able to have a bowel movement when he tries, however at times he will fight to sit for fear of the process being painful. Occasionally he complains of

lower abdominal pain, but otherwise has exhibited good growth and development. Physical exam reveals stool mass palpated in the lower left quadrant (LLQ) and a fecal mass is present on digital rectal exam.

### CASE DISCUSSION

Constipation is defined as a delay or difficulty in defecation present for two or more weeks. It is a common pediatric problem resulting in 3% of general pediatric visits and 25% of pediatric gastroenterology visits<sup>1</sup>. Chronic constipation and fecal retention are a source of anxiety for parents who worry that a serious disease may be present. However only a small percentage of children develop an organic cause for constipation.

Functional constipation, without evidence of an organic source, is caused by painful bowel movements resulting in voluntary withholding of stool to avoid painful defecation. Stool retention becomes an automatic behavior with the urge to defecate subsiding. Over time the rectal wall stretches with fecal soiling (encopresis) occurring due to overflow incontinence.

#### DIAGNOSIS

A thorough history is recommended as part of a complete evaluation of a child with constipation. Important information includes the length of time of meconium passage, frequency, consistency and size of bowel movements. Signs of organic disorder include abdominal distention or pain, vomiting,

weight loss or poor weight gain and growth.

Additional important questions to ask:

- Is defecation painful or blood present?
- Is the child experiencing abdominal pain?
- Is there soiling?
- Has there been previous testing or treatments?
- Are there significant findings in the medical or developmental history, including the growth pattern?
- Is there a significant family history for thyroid problems, constipation, celiac disease or cystic fibrosis?
- What is the psychosocial dynamic?
- What are the child's toileting habits?

A physical exam is also part of a complete evaluation. An abdominal assessment may present palpable fecal mass or abdominal distention. An external examination of the perineum and perianal area should look for anal position, skin tags or fissures. At least one digital rectal examination is recommended to assess anorectal tone and presence of a fecal bolus.

Occult blood is suggested in the child with abdominal pain, failure to thrive or family history of colonic polyps. Back and spine evaluation for sacral dimples or hair tufts is also important. Neuromuscular exam is often used to assess muscle strength, tone and deep tendon reflexes. A history and physical examination is generally sufficient in allowing the practitioner to establish whether the child needs further evaluation.

#### MANAGEMENT

The general approach to managing functional constipation in children includes several steps. If impaction is present, it must be treated. The initial treatment is maintenance therapy to include medications, diet and behavioral therapy. Follow up with medication adjustments as necessary. Education of the family and child is also an important part of treatment. Parents should be encouraged to maintain a consistent, supportive and positive attitude in all aspects of the therapy.

Disimpaction is necessary before initiation of maintenance therapy using oral or rectal options. Oral treatment options include high

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doses of polyethylene glycol electrolyte solutions, bisacodyl, magnesium citrate, lactulose, magnesium hydroxide or mineral oil. Rectal disimpaction includes the use of saline, mineral oil or phosphate soda enemas, or bisacodyl or glycerin suppositories.

Maintenance therapy focuses on the prevention of recurrence of impaction. This therapy consists of laxatives, dietary and behavioral modifications to assure that good bowel movements occur at normal intervals, with good evacuation. Dietary changes are advised such as increased intake of fluids and a balanced diet that includes whole grains, fruits and vegetables. An important part of behavioral modification includes regular restroom habits; unhurried restroom time after meals is recommended. A stool frequency diary combined

with a reward system such as a calendar with stickers to record the stool frequency can be helpful. This serves as both a diary and a point of positive reinforcement. Medications such as polyethylene glycol, lactulose or magnesium hydroxide have been found to be safe and effective<sup>2</sup>. The prolonged use of stimulant laxatives is not recommended, however they may be used as a rescue therapy intermittently for a short period to treat recurrence of impaction.

Discontinuation of maintenance therapy is considered only when the child has been having regular bowel movements without difficulty. Families should be aware that relapses are common and problems with constipation may continue into adolescence. If therapy fails or there is an underlying organic disease, it is necessary to consult a pediatric gastroenterologist.

## REFERENCES

Adapted from Clinical Practice Guideline Evaluation and Treatment of Constipation in Infants and Children: Recommendations of the North American Society for Pediatric Gastroenterology, Hepatology and Nutrition. *Journal of Pediatric Gastroenterology and Nutrition* 2006; 43:e1-e13

1. Molnar D, Taitz LS, Urwin OM, Wales JK. Anorectal manometry results in defecation disorders. *Arch Dis Child* 1983; 58:257-61.
2. Loening-Baucke V. Chronic constipation in children. *Gastroenterology* 1993; 105:1557-64.

## FEATURED NURSE SPECIALIST



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