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AN APPROACH TO CHILDHOOD DEFAECATION DISORDERS

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Constipation is a chief complaint in 3 - 5% of paediatric outpatient visits[1] and is a problem for about 1 in 6 children at some time.[2] There is wide variability in what should be considered normal defaecation frequency in children. The first bowel movement generally occurs within 36 hours after birth in term newborns. It may be delayed in premature infants.[1]

Functional constipation

Outside the neonatal period constipation is generally a functional disorder (i.e. no evidence of structural, endocrine or metabolic disease). It is defined as the passage of hard and pebble-like stools, or the infrequent (2 or less per week) passage of firm stool for a period of at least 2 weeks.[2] Possible contributing factors to the development of constipation are:

- genetic predisposition
- diet
- efficient absorption
- transit delay.

Inadequate fibre intake and the ingestion of drugs can be excluded by careful history taking.[3] Physical examination is generally normal and special investigations are only warranted in the presence of poor weight gain, abdominal distention, vomiting, anterior displaced anus or occult spinal dysraphism (sensory or motor deficits, patulous anus, urinary incontinence, absent cremasteric reflex or pigmentary abnormalities and hair tufts in the sacro-coccygeal area[1]). Treatment includes an increase in dietary fibre. Sorbitol and fructose found in fruit juices can cause increased frequency and water content of stool.[4] When dietary intervention is unsuccessful, non-stimulant laxatives like lactulose and sorbitol can be effective.

Functional faecal retention (often with soiling)

Functional faecal retention (FFR) is defined as the infrequent passage of large diameter stools with retentive posturing (contracting muscles of the pelvic floor and squeezing buttocks together). Accompanying symptoms include soiling of the underclothes, irritability, abdominal cramps and decreased appetite.[3] FFR begins when there is a painful bowel movement. The child learns to fear the urge to defaecate, with subsequent withholding. There are 3 periods when a child is particularly vulnerable to developing constipation:[1]

- time of weaning from breast milk to formula and introduction of solids to the diet
- toilet training
- start of school.

On physical and rectal examination there may be a palpable lower abdominal mass and a dilated, stool-filled rectum. A thorough history and physical examination generally suffice to establish whether further evaluation is required. A plain abdominal X-ray can confirm the presence of a faecal mass and the extent of faecal loading, especially when the rectal examination is best avoided. Treatment goals in FFR include a combination of parental education, behavioural modification and medical intervention.[1] This is to help the child overcome the emotional distress associated with defaecation. Initial faecal clearance can be achieved by enemas (phosphate enema: 6 ml/kg, up to 135 ml in total — to be avoided in children under 2 years old) and by the oral administration of a balanced polyethylene glycol electrolyte solution (Go-lytely) as an intestinal lavage. Nasogastric administration is often needed, as large volumes are required (25 ml/kg/h).[4] Only artificial sweeteners can be added to improve palatability, as glucose will facilitate electrolyte and water absorption. A 24-hour hospitalisation period is usually adequate. The Go-lytely must be given until virtually clear fluid is passed. Painless defaecation is best acquired through the use of non-stimulant stool softeners (mineral oil: 1 - 3 ml/kg/day in divided doses — to be avoided in children < 1 year old) or osmotic laxatives (lactulose, sorbitol, magnesium hydroxide: 1 - 3 ml/kg/day in divided doses).[4] Titrate doses to provide soft stools. Continue laxatives daily for at least 3 - 6 months or longer if indicated. Stimulant laxatives (senna, bisacodyl) should be reserved for resistant cases, or as rescue agents when there has been no bowel movement for more than 3 days.[1] Parents must be compulsive about medicating the child, because one painful bowel movement will reinstitute the fear and holding-back cycle. The child should also be

Treatment definitely prevents further morbidity and is also more effective when administered soon after the traumatic event.

In children younger than 6 years the reaction to trauma is reflected in developmental aspects of their behaviour.

retrained in toileting habits, making use of the gastrocolic reflex after meals.

Younger children often respond to rewards (e.g. star charts) for appropriate behaviours like sitting on the toilet or having a bowel movement in the toilet.[2]

The role of diet and fibre in FFR is controversial. Fibre does not reliably soften stools during childhood and may occasionally worsen symptoms. Dietary restrictions are not really necessary. However, the clinician should provide continuing availability and follow-up visits. The factors leading to stool withholding and the benign nature of the disorder should be explained to the family. Prognosis is good as long as there is compliance with the treatment plan.

Functional non-retentive faecal soiling

Faecal soiling without retention may be secondary to diarrhoeal disease (fatigue of pelvic floor muscles) or defective neuromuscular control, e.g. spinal defects. Encopresis is an uncommon subtype of functional non-retentive faecal soiling. It is a psychiatric term that refers to the repeated, voluntary or involuntary passage of quantitatively normal faeces into inappropriate places. It occurs after the age of 4 years. There is no organic cause. Refer these children to a mental health professional as their soiling is a symptom of emotional upset.[3]

References available on request.