EDITORIAL

CHILDHOOD CONSTIPATION - A NEW EPIDEMIC

In third world countries diarrhea has always been the main focus of care- givers for children. However a fair number of constipated children are also referred to us mainly to rule out pathological constipation, especially the possibility of Hirschsprung's disease. Of the many disorders afflicting children, severe or perceived constipation, often has the most disruptive effect on the family. The parents often are upset out of all proportion to the degree of the child's illness. They often are referred because their doctor is at his wits end and needs help. Frequently, these children arrive with a stack of X-Rays, reported as megacolon, with demand of a rectal biopsy 'to rule out Hirschsprung's disease'. However, a careful history sometimes is all that is required without resorting to further tests.

Although constipation among children has been recognized for thousands of years, even its definition remains a source of disagreement. Defecation patterns that worries one child's mother may be of no concern to another. Several bowel movements a day or only one every 5 to 7 days may be normal in children over one year of age. In my experience constipation should be considered to be present only when the stools are hard, difficult to expel, or associated with clinical symptoms of pain or blood. The Paris Consensus on Childhood Constipation Terminology (PaCCT) group have given a standardized criteria[1].

The problems underlying constipation maybe of major or minor importance. They vary in frequency by age, but in any case can be subdivided into one of several categories:

ABNORMAL STOOLS

An excessive intake of cow's milk with too little variety of other foods will produce simple constipation. A new mother with frank under-feeding or strange feeding practices on the advice of elders or well-meaning neighbors have to be investigated. Insufficiency of fluids or excessive sweating due to over-clothing is quite common in our patients, due to excessive fear of "colds and pneumonia". Cystic fibrosis and sometimes pyloric stenosis may be kept in mind, as a cause of hard stools.

LOCAL STRUCTURAL PROBLEMS

Major structural abnormalities of the anorectum, including stenosis may present actual physical barrier to normal evacuation, a fact that may have escaped the primary physician. Anal fissures can cause voluntary stool holding. The bulky, hard stools that follow aggravate the fissure further and can turn an acute problem into a chronic one. Similarly on rare occasions, tumors and abscesses can compress or narrow the rectum.

EXTRINSIC ABNORMALITIES OF NERVES AND MUSCLES

The disorders that can cause this condition include meningocele, cerebral palsy, polio or polyneuritis. With loss of urge to defecate, constipation may result with eventual dilatation of rectum. More general muscular weakness, as in prune belly syndrome may diminish the intra-abdominal pressure.

INTRINSIC MOTILITY ABNORMALITIES

The classic Hirschsprung's disease is the most important example. Many years ago when we were medical students, our teachers felt that Hirschsprung's disease was not very common in our part of the world. A fact mainly based on the lack of experience of histopathologists of the time. By 2000, more than 500 articles have been published on the subject, and is still a challenging undertaking for the paediatric surgeons[2]. Other causes to be excluded are metabolic and endocrine, for example, hypercalcemia, hyperkalemia, abnormal thyroid functions etc. In our country there is an excessive use of number of medicines, which can cause severe constipation, especially those containing opiates and antispasmodics. A careful drug history is essential. Beware of the rare conditions called functional intestinal obstruction and chronic idiopathic intestinal pseudo-obstruction[3].

FUNCTIONAL CONSTIPATION AND "THE CONSTIPATION CYCLE

This is the most important and common form of constipation and many of the children fit into this category. In a latest study from

India this accounted for more that 85% of the cases[4], although it has reported to be as high as 90-95%[5]. A careful history often reveals that at about the same time a new baby made his appearance or when there was a major family upheaval, like move to a new station or starting of school. The age of this child ranges from 4 to 13 years, but is usually during the early pre-school years. Soiling by overflow around impacted feces is most distressing and hastens the seeking of expert advice. The family thinks the child is having great pain and suffering when moving the bowels, when actually the patient may struggle to hold back bowel movements by tightening the buttocks. He or she turns red in the face and frightens the parents and grandparents.

A 'vicious cycle' starts (what I call the 'Constipation Cycle'). The retained stools further dilate the rectum, thus reducing its propulsive power. This further dilates the rectum, further reducing forceful contractions. The stool becomes too large and too hard to pass easily. Diminution in sensitivity of rectal stretch receptors also occurs, and the conscious sensation of the urge to defecate becomes suppressed.

When constipation is part of a general disorder, the diagnosis may be easy. Similarly, simple physical inspection and digital rectal examination (DRE), enables the recognition of many disorders responsible for this malady. Before a diagnosis of psychogenic constipation is made ruling out of other causes is important. A careful history about onset and progression of constipation will eliminate the need for many sophisticated investigations and pediatric surgeons.

The treatment of most of the causes of constipation is straightforward. Metabolic and endocrine disturbances are corrected; anatomic obstructions are surgically corrected; responsible drugs eliminated.

The treatment of psychogenic constipation requires a good rapport of the pediatric surgeon with the patient and his family. Treatment starts with an explanation that this child could not help himself at the onset and that now the rectum is so distended it will not respond to normal urge to defecate.

The object of medical treatment is to empty the rectum and keep in empty. Hopefully this will restore the normal defecatory reflex. A high fiber diet is the basis of treatment. Think what the child in front of you would like - popcorn are well accepted and are an excellent source of fiber. It is necessary to remove the fecal impaction with frequent enemas. Kleen enemas are quite helpful in this respect. Take time to teach the mother. Once the impaction has been removed, the child commences to have regular motions and develops a better self-image. In addition to diet and enemas, lactulose is required. The dosage required is tailored according to the severity and response of the patient, and the harmless nature of the drug, even after prolonged use should allay any fears about chronic use. This is then tapered over a period of months or years.

Treatment failures are frequent, and great enthusiasm on the part of the treating surgeon is essential to success (don't rush towards contrast studies or rectal biopsies!). During the entire treatment process, one must work to dispel the hostility between the parents and the child. It helps to have the child assume responsibility for as much of his own treatment as possible.

REFERENCES

1. Benninga M, Candy DC, Catto-Smith AG, Clayden G, Loening-Baucke V, Lorenzo CD, et al. The Paris consensus on childhood constipation terminology (PACCT) Group. J Pediatr Gastroenterolo Nutr 2005; 40: 273-5.
2. Masiakos PT, Ein SH. The history of Hirschsprung's disease: Then and now. Semin Colon Rectal Surg 2006; 17: 10-19.
3. Puri P. Editorial. Pediatr Surg Int 2002; 18: 1.
4. Khanna V, Poddar U, Yachha SK. Etiology and clinical spectrum of constipation in Indian children. Indian Pediatr 2010 Mar 15 [Epub ahead of print].
5. Rubin G, Dale A. Clinical Review: Chronic Constipation in children. BMJ 2006; 333: 1051-5.

Lt Col C. Aqeel Safdar, TI (M),psc
Assistant Editor PAFMJ
Associate Professor of Surgery
Military Hospital Rawalpindi