Megarectum and anismus: A cause of constipation

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A young, seventeen-year-old male presented with chronic constipation since childhood, and fewer than two bowel movements per week. He usually needed a suppository or enemas for evacuation. He has sometimes had colic abdominal pain, and last month he experienced fecal incontinence from stool impaction. He had no previous diseases or treatments.

A barium enema showed a significant rectal dilation with a smooth-contour stricture in the sigma. The remaining large bowel showed no radiographic alterations (Figs. 1 and 2), but barium reached the splenic angle just by progressive rectal dilatation.

Colonoscopy showed a megarectum with normal mucosa for 30 cm without peristaltic movements or strictures. A rectal biopsy showed nonspecific chronic inflammation. Anorectal manometry, which helps in the diagnosis of Hirschsprung’s disease, measured an impaired anal tone (resting pressure between 38 and 61 mmHg) with absence of the recto-anal inhibitory reflex.

Rectal barostate testing involves the use of a balloon that is inserted into the rectum to measure anal pressures during its progressive inflation. This test showed a recto-anal inhibitory reflex at 4 mmHg (normal) with a normal sensation of rectal fullness (desire to defecate at 8 mmHg) and raised rectal compliance (20 ml/mmHg). Intraabdominal pressures were adequate during the straining to defecate, but with the paradoxical anal contraction that is characteristic of anismus.

He started treatment with osmotic and stimulating laxatives, with a poor response; then we referred him to a proctology unit for biofeedback therapy.

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Fig. 1. Barium enema showed significant rectal and sigmoid dilatation with a normal mucosa, and a proximal stricture because of colonic spasm.

Fig. 2. The stricture disappears once barium is introduced.
Anismus or obstructive defecation with no anatomic abnormalities is recognized by a failure of relaxation of the puborectalis and external anal sphincter muscles, or a paradoxical contraction of these muscles during the straining to defecate. The basic mechanism behind persistent constipation is a failure of the anorectal angle to straighten, and of the anal canal to shorten as a result of sustained contraction of the puborectalis muscle.

Around 50% of patients referred to tertiary care centers with chronic constipation have obstructive defecation (anismus, pelvic chronic floor dyssynergy or anorectal dysmotility). Such patients usually have a normal colonic transit time, but delayed transit in the rectosigmoid segment. Some of these patients present with anatomic abnormalities such as megarectum, rectocele, enterocele, etc., or have functional causes such as a spasm of pelvic floor muscles resulting in resistance to defecation (anismus).

In our case the patient had anismus and megarectum, probably secondary to sustained obstruction to defecation, with slow fecal transit into the involved segment. However, no functional tests are reliable in the diagnosis of anismus because of common false positive results. In this case both clinical and radiological data, especially the rectal balloon, support this diagnosis.

The latter diagnosis with relevant rectal dilatation is most significant. The optimal management of anismus involves biofeedback, which improves subjective and objective parameters of anorectal function in at least 60-80% of patients. Therapy with botulinum toxin type A into the puborectalis muscle needs further research with controlled trials.

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REFERENCES