Hirschsprung’s Disease Presenting as Calcified Fecaloma

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Abstract. Fecaloma, a discrete mass of intestinal debris and fecal material usually occurring in the colon, is a rare finding in children. The case of a six-year-old boy is presented who developed signs of partial colonic obstruction which was due to a large, calcified fecaloma of the rectosigmoid. Barium enema revealed changes indicating Hirschsprung’s disease which were confirmed with rectal biopsy. Any child presenting with fecaloma should be evaluated for Hirschsprung’s disease.

Key words: Colonic obstruction, constipation, fecaloma, Hirschsprung’s disease, megacolon.

Fecaloma refers to an accumulation of intestinal debris and fecal material which forms a discrete mass separable from the rest of the bowel contents. The condition is uncommon and the vast majority of reported cases have been in adults. We are reporting a case of fecaloma of the colon which is unusual not only because of its occurrence in a child but because it led directly to the diagnosis of an underlying disease, congenital aganglionic megacolon, which had been previously unsuspected.

Case Report

A six-year-old white male presented with anorexia and abdominal distention of six days’ duration. Vomiting of all intake began 24 hours prior to admission. Past history revealed that the patient had experienced difficulty with constipation since two years of age. Physical examination revealed a chronically ill-appearing boy with a markedly protuberant abdomen and mild dehydration. The abdomen was non-tender to palpation and tympanitic to percussion. There were no palpable masses and rectal examination was normal. The preliminary clinical diagnosis was acute intestinal obstruction.

Radiographs of the abdomen demonstrated marked colonic dilatation and a calcified mass at the rectosigmoid junction which measured 6 cm. in diameter (Fig. 1a). On barium enema, the large calcified mass initially blocked retrograde flow of barium at the rectosigmoid junction. With increased pressure and further dilatation of the rectum, the mass was seen to suddenly flow back into a massively dilated sigmoid (Fig. 1b). The remainder of the colon was moderately dilated but no obstruction was encountered. A radiographic diagnosis of Hirschsprung’s disease with calcified fecaloma was entertained.

The fecaloma, the surface of which was found to be rock hard at proctoscopy, was broken up and dissolved over a three week period utilizing stool softeners, enemas and digital kneading. A subsequent barium enema demonstrated definite narrowing of the rectum with a transition zone at the rectosigmoid typical of Hirschsprung’s disease (Fig. 2). The diagnosis of aganglionosis was confirmed with rectal biopsy. The patient was treated surgically with a 6 cm. anorectal myomectomy and had rapid improvement in his bowel function and general health.

Discussion

The radiographic diagnosis of fecaloma may be readily established on plain film study of the abdomen if the mass is calcified as it was in the present case. If non-calcified, the fecaloma may not be detected until barium enema is performed. The mass is then demonstrated as a discrete, rounded filling defect within the barium filled colon.

The composition of fecalomas is quite variable, but is largely inspissated fecal material in alternating layers with intestinal debris and minerals, usually calcium phosphate [4]. Some fecalomas seem to form about a nidus of ingested foreign material such as hair, bismuth and barium salts and undigested seeds and fruit pits [1,4].

Fecalomas are usually found in the rectosigmoid although cases have been reported in the cecum and in the small bowel [5]. In the distal colon there is usually a single mass ranging in size from 4 to 10 cm. in diameter. Occasionally, the masses reach huge
Fig. 1a. Supine radiograph of abdomen shows large calcified fecaloma in rectosigmoid region (solid arrows). Open arrows indicate width of dilated sigmoid colon. — 1b. Barium enema after calcified fecaloma flowed back into sigmoid (solid arrows). Open arrows indicate walls of sigmoid colon.

Fig. 2. Follow-up barium enema demonstrates narrow rectum with definite transition zone indicating Hirschsprung’s disease.