Denouement and Comment

Sigmoid Volvulus

The radiograph of the abdomen (Figure 1) shows a markedly distended sigmoid colon with an inverted U-shaped appearance; the limbs of the sigmoid loop are directed toward the pelvis, while the other end enters the left upper quadrant. The colonic haustra are lost. The involved bowel walls are edematous, the contiguous walls forming a dense white line on radiographs surrounded by the curved and dilated gas-filled lumen, resulting in a coffee bean–shaped structure; this is the coffee bean sign.1 There is “beaking” at the distal end of the sigmoid and minimal gas in the distal sigmoid and rectum. This is the classic radiograph appearance of sigmoid volvulus. In case of a nonspecific plain film, a barium enema can be used. In the first image (Figure 2), barium enters the empty rectum and encounters stenosis, giving rise to a beaklike appearance, the so-called bird’s beak or bird-of-prey sign.2 Figure 3 shows beaking of 2 loops of adjacent bowel, signifying a twist of the sigmoid colon.

Sigmoid volvulus is a rare but potentially life-threatening condition in the pediatric age group, the most common presenting features being abdominal pain, distention, and vomiting.2 If not recognized and treated promptly, the involved bowel loop may become ischemic and gangrenous, with resulting perforation, peritonitis, septic shock, or death.2 The first goal of treatment is to perform detorsion of the volvulus to prevent the development of gangrene. This is accomplished by passing a rectal tube (done in this case), by barium enema or by sigmoidoscopy.3 There is a high rate of recurrence because the anatomical abnormality that led to volvulus (redundant sigmoid colon, narrow mesenteric attachment, and elongated mesentery) persists.2,3 Hirschsprung disease may be present in 17% of cases, so this should be ruled out by rectal biopsy.2 The definitive treatment is sigmoidectomy with primary anastomosis.2,3

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