Letters to the Editor

Cecal volvulus

Dear Sir,

Volvulus of the cecum was first noted by Hildanus in the 16th century and reviewed by Rokitansky in 1837.[1] It is a surgical emergency caused by the axial twist of the cecum, distal ileum, and proximal colon in the absence of normal cecal fixation.[2] Cecal volvulus is a rare cause of intestinal obstruction, accounting for 1% of all instances of intestinal obstruction but it accounts for 11% of all intestinal volvulus.[3] Wright et al, found in recent series, the average patient age ranged from 53.3-62.3 years.[3] A slight female predominance was found, with a female to male ratio of 1.4 to 1.0.[2] Cadaveric examination has shown that between 11% and 22% of the general population have a cecum sufficiently mobile to allow the devlopment of volvulus. Precipitating factors included adhesion from previous surgery, congenital bands, pregnancy, malrotation, and obstructing lesions of the left colon. Dietary factors are considered important. In countries with a high intake of coarse vegetable fribres, the incidence of cecal volvulus is high. The patient with cecal volvulus usually presents with a short history of central abdominal pain, suggestive of mid-gut colic and has symptoms and signs of acute intestinal obstruction. Examination usually reveals a distended abdomen with obstructed bowel sounds and the classical signs of asymmetrical distension. Radiological examination of the abdomen is very helpful, but in many cases diagnosis is made at laparotomy. Plain abdominal radiographs as been reported to the diagnosis of cecal volvulus in only 44%-46% of cases.[2,3] The classical finding of cecal volvulus on plain film is the "coffee bean" sign directed toward the left upper quadrant. Plain films are usually adequate for diagnosis, but if they are equivocal, barium enema is the next test of choice.[3] Delay in obtaining other diagnostic studies is unwarranted. However, barium enema can prove useful in difficult cases and has been known to reduce cecal volvulus. Many authors advocate pre-operative barium enema examination to confirm the diagnosis and to exclude a concomitant obstructing lesion of the left colon[4] but 'Anderson et al'[5] believed this is unnecessary and potentially dangerous. Frank et al,[4] reported the first description of the computerized tomography diagnosis of cecal volvulus with the "Whril Sign". They mentioned that the "Whril Sign" may be seen in any case of intestinal volvus. An 82-year-old man presented with a history of abdominal pain and distention for 4 days duration. He complained of vomiting and constipation for the past 24 hours. The patient described 2 similar episodes in the past that had resolved spontaneously. His past surgical history included a Billroth I procedure for peptic ulcer disease and right sided lung abscess following pneumonia. On physical examination, his vital signs were normal and he had mild abdominal discomfort. One well healed surgical scar was seen. Moderate distension of the abdomen was likewise noted, without any tenderness, and bowel sounds were present. There were no masses or hernias. Per rectum examination revealed no masses, no blood and there was soft stool in the rectum. Admission laboratory data was unremarkable. Abdominal radiograph demonstrated dilated small bowel loops and little gas in the colon. Incidentally noted were radiopague gallstones and aortic calcification. Initially, the patient was placed on bowel rest and nasogastric suction with no improvement. Urgent exploratory laparotomy revealed a volvulized cecum, accymotic, but without evidence of gangrene. A right hemicolectomy with an end to end ileocolic anastomosis was performed. On the 4th postoperative day, the patient developed a chest infection treated by chest physiotherapy and antibiotics. The patient was asymptomatic when discharged 10 days after surgery. Cecal vovulus is a rare, but potentially fatal, cause of intestinal obstruction. Early and accurate diagnosis of cecal volvulus is clearly of prime importance in selecting optimum treatment of the condition to minimize morbidity and mortality rates. Due to the rarity, its optimal management is still controversial. Some authors favor resection, while others advocate non resectional or even non surgical therapy. The optimal treatment of cecal volvulus remains a matter for debate. There are 4 possibilities, simple untwisting, cecapexy, cecostomy or resection (ileocecal or right hemicolectomy).[6] In cases in which the diagnosis is confirmed before operation, colonoscopic decompression might be considered, especially in high risk patients, but this probably demands considerable expertise and will be a realistic alternative only in a few caes. Reduction by colonoscopy has been reported but does not take care of the original problem and is associated with a high risk of recurrence. There is almost a general agreement about the choice of operation in the presence of cecal volvulus with any suspicion of compromised viability of the bowel. When the gangrene is patchy and without major signs of peritonitis, resection and primary anastomosis may be performed, however in the presence of a large area of gangrene or perforation or both, wide resection with the formation of an ileostomy and a distal muscous fistula is a safer procedure. Resection "even in the absence of gangrene" was first recommended by Melchor in 1949 and has later been advocated by others.[6,7] Although resection supposedly represents a greater surgical trauma than

the other alternatives, it is the method of choice and the best modality whether the bowel is gangrenous or not, because it has a low mortality and also gave the best long term results.[6] In the presence of the viable bowel, the surgeon has a number of treatment options. Untwisting the volvulus is a simple and rapid procedure, avoids the opening of the colon but was assoicated in several reports with a high recurrence rate.[2] Subsequently, cecopexy was proposed which seems to be a procedure of questionable value, since it is technically difficult to perform and carries a high risk of leakage. Further, the recurrence rate after cecopexy is up to 29%. Cecostomy, however, was accompanied by a very low rate of recurrence of 1%. Cecostomy alone, or in combination with cecopexy, which was suggested for both cecal fixation and decompression, carried a high risk of wound infection, serious complications and mortality, should be abandoned.[2] Patel et al[8] reported successful use of anterior percutaneous decompression in an acutely ill patient with a cecal volvulus. Broad spectrum antibiotics were considered mandatory. The results show that percutaneous decompression can result in detorsion of the volvulus. Bhandarkar et al[9] presented a patient with caecal volvulus treated by laparoscopic caecopexy. It is feasible and may form a simpler and safer method of treating patients with cecal volvulus without gangrene. The diagnosis of cecal volvulus must always be considered a possible cause of intestinal obstruction. A high index of suspicion leading to early diagnosis and suitable operative intervention should decrease the high mortality associated with this condition.

Alaa Abdul Jabbar
King Faisal Specialist Hospital & Research Center
PO Box 3354
Riyadh 11211
Kingdom of Saudi Arabia

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