CASE REPORT

Giant colonic volvulus due to colonic pseudo-obstruction

Kerem Karaman,¹ Alpaslan Tanoglu,² Yavuz Beyazit,³ Ismet Han⁴¹Department of General Surgery, Sakarya University Faculty of Medicine, Istanbul, Turkey²Gastroenterology Department, GATA Haydarpaşa Training Hospital, Istanbul, Turkey³Department of Gastroenterology, Canakkale State Hospital, Canakkale, Turkey⁴Department of General Surgery, Izmir Tepecik Teaching and Research Hospital, Izmir, Turkey**Correspondence to**
Dr Alpaslan Tanoglu,
alpaslantanoglu@yahoo.com

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SUMMARY

Acute colonic pseudo-obstruction (ACPO), also known as Ogilvie's syndrome, is a clinical syndrome characterised by gross dilation of the caecum and right hemicolon, which sometimes extends to the sigmoid colon and rectum in the absence of an anatomic lesion in the intestinal lumen. It is characterised by impaired propulsion of contents of the gastrointestinal tract, which results in a clinical picture of intestinal obstruction. A careful examination of the markedly distended colon can exclude several colonic pathologies, including mechanical obstruction and other causes of toxic megacolon. ACPO can sometimes predispose or mimic colonic volvulus, especially in geriatric patients.

BACKGROUND

Acute colonic pseudo-obstruction (ACPO), also known as Ogilvie's syndrome, is a clinical syndrome characterised by gross dilation of the caecum and right hemicolon, which sometimes extends to the sigmoid colon and rectum in the absence of an anatomic lesion in the intestinal lumen.^{1 2} It is characterised by impaired propulsion of contents of the gastrointestinal tract, which results in a clinical picture of intestinal obstruction. A careful examination of the markedly distended colon can exclude several colonic pathologies, including mechanical obstruction and other causes of toxic megacolon. ACPO can sometimes predispose or mimic colonic volvulus, especially in geriatric patients, as in our case. We present a case of a patient with diabetic ACPO who was admitted with giant colonic volvulus, and who recovered after surgical intervention.

In general, colonic volvulus accounts for 1–7% of cases of large bowel obstruction in Western Europe and the US.³ The mortality rate, however, can be as high as 20–25%, depending on the delay of patient presentation before treatment is sought.⁴ Urgent surgical intervention is still necessary on some occasions, especially in patients with unsuccessful conservative management, in those with signs of gangrenous bowel and in patients with volvulus proximal to the sigmoid colonic segments. When the bowel is not viable, surgical resection is mandatory.³

CASE PRESENTATION

A 77-year-old man presented with vomiting, abdominal pain, persistent and increasing abdominal distension, and absence of bowel sounds. He had a history of coronary artery disease, diabetes mellitus and hypertension for 5 years. He had mild chronic constipation for several years, which he managed with a

dietary approach. He also had a history of small bowel obstruction 4 weeks previously, which was resolved with conservative management. The patient was not receiving any narcotics or other medications that could cause intestinal obstruction. Physical examination at admission revealed massive abdominal distension and mild abdominal discomfort with no rebound. Laboratory evaluations were within normal limits except for an elevated white cell count. In direct abdominal X-ray, extremely dilated bowel loops and multiple small and large intestinal air-fluid levels were observed. These massively dilated bowel loops were thought to be associated with volvulus. After the ineffectiveness of conservative treatment, an urgent surgical intervention was planned. At laparotomy, an extremely dilated bowel loop was observed (figure 1), with a diameter of approximately 25 cm. No evidence of mechanical obstruction was visualised. A Hartmann's procedure consisting of subtotal colectomy that extended from the rectosigmoid region to the right colon 10 cm distal to the caecum was performed. While the intraoperative appearance of the caecum was mildly dilated, it was preserved due to its absorptive capacity to prevent diarrhoea and fluid loss that substantially occur after end ileostomy.

OUTCOME AND FOLLOW-UP

After the operation, the patient recovered well and was discharged on the 10th day after surgery.

DISCUSSION

ACPO is a rare condition usually arising in the geriatric patient population, of which many individuals have concomitant medical or surgical accompanying disease conditions. These conditions usually include electrolyte abnormalities, myocardial infarction, drug use, malignancy, sepsis, burns, trauma or metabolic disorders, including diabetes mellitus.² In this respect, we think the concomitant presence of coronary artery disease and diabetes mellitus may both have predisposed to ACPO development in our patient.

Although the pathogenesis, clinical manifestations, response to medical treatment and prognosis of chronic ACPO have not been fully elucidated, it mimics mechanical bowel obstruction without evidence of lesions occluding the bowel lumen.⁵ For this reason ACPO must be differentiated from mechanical causes of large bowel obstruction, including colonic volvulus, strictures and tumours as well as functional paralytic ileus and acute gastric distension. Early recognition and diagnosis of the situation allows for treatment prior to bowel perforation and requisite

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Figure 1 (A) Extreme abdominal distension due to volvulus. (B–D) At laparotomy, extremely dilated colonic segment with a diameter of about 25 cm was found as a result of colonic volvulus.

abdominal surgery. The initial treatment strategy is conservative management, but in failed cases, pharmacological treatment with neostigmine should be attempted. In uncomplicated cases, colonoscopic decompression is successful in approximately 80% of patients.⁶ As in our case, abdominal surgery is the only treatment for patients who do not respond to non-operative management and who have complications from necrosis or perforation.

In conclusion, ACPO mimicking colonic volvulus is a surgical emergency that necessitates urgent diagnosis, resuscitation and management. Early recognition and prompt conservative management of colonic obstruction can minimise complications and the need for surgical intervention.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

Learning points

- ▶ Acute colonic pseudo-obstruction (ACPO) is a clinical syndrome characterised by gross dilation of the caecum and right hemicolon, which sometimes extends to the sigmoid colon and rectum in the absence of an anatomic lesion in the intestinal lumen.
- ▶ A careful examination of the markedly distended colon can exclude several colonic pathologies including mechanical obstruction and other causes of toxic megacolon.
- ▶ ACPO mimicking colonic volvulus is a surgical emergency that necessitates urgent diagnosis, resuscitation and management.

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