

THE CLINICAL PICTURE

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Ogilvie syndrome (colonic pseudo-obstruction)

A 54-YEAR-OLD MAN was admitted for intramedullary nail fixation of a left femoral fracture. His medical history included atrial fibrillation, peripheral vascular disease, overactive bladder syndrome with recurrent urinary tract infections, and pulmonary fibrosis secondary to the use of nitrofurantoin (which he was receiving to treat the urinary tract infections).

Within 2 days of the operation, his abdomen became markedly distended, but without pain. On examination, he was delirious, his pulse and respiratory rates were rapid, he had hypoxia requiring supplemental oxygen at 2 L/minute, and his abdomen was distended, tense, and tympanic with tinkling bowel sounds. His electrolyte levels were in the normal range.

Plain radiography (**Figure 1**) and computed tomography (**Figure 2**) showed dilatation of the entire large bowel including the rectum; in places the diameter was as much as 12 cm. No mechanical obstruction or transition point could be identified, confirming a diagnosis of acute colonic pseudo-obstruction, or Ogilvie syndrome.¹

■ DISPROPORTIONATELY AFFECTS ELDERLY PATIENTS

Ogilvie syndrome typically occurs, as in this case, in hospitalized patients who are severely ill, have suffered trauma, or have undergone major surgery.² It disproportionately affects elderly patients and those with chronic medical diseases who receive a further physiologic insult; it is thought to be due to dysregulation of the autonomic innervation of the bowel, which is responsible for normal colonic motility.

■ MANAGEMENT FOLLOWS A STEPWISE APPROACH

The aim of management is to decompress the colon to minimize the risk of ischemia or perforation. If either of these is present, urgent surgery should be pursued. Oth-

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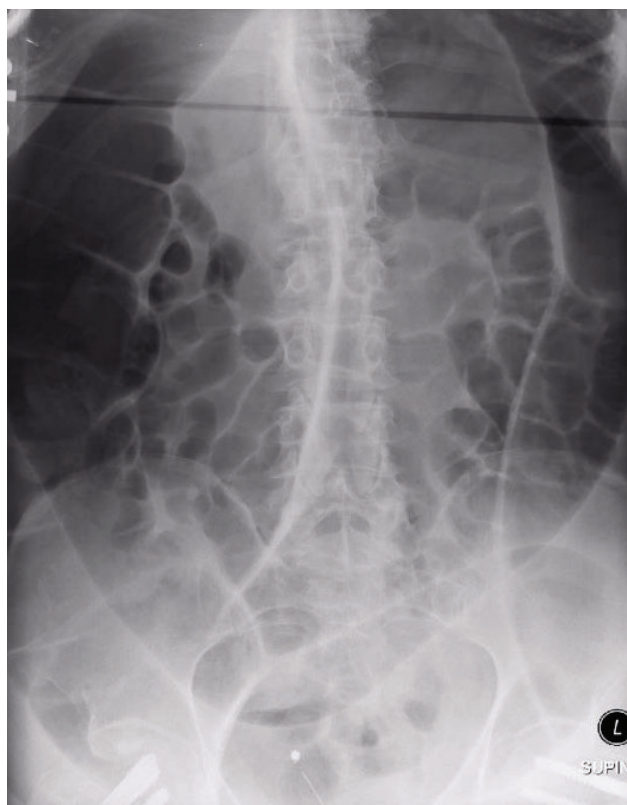


Figure 1. Plain radiography of the abdomen showed multiple distended bowel loops.

erwise, initial therapy is conservative. This includes close monitoring, supportive care, placing a nasogastric tube, and discontinuing any precipitating factors such as opiates or anticholinergics. Most cases resolve with conservative management alone.³

If conservative measures yield no improvement, first-line pharmacologic therapy is with neostigmine, which is effective in about 90% of cases.^{4,5} A key disadvantage of this cholinergic drug is the risk of

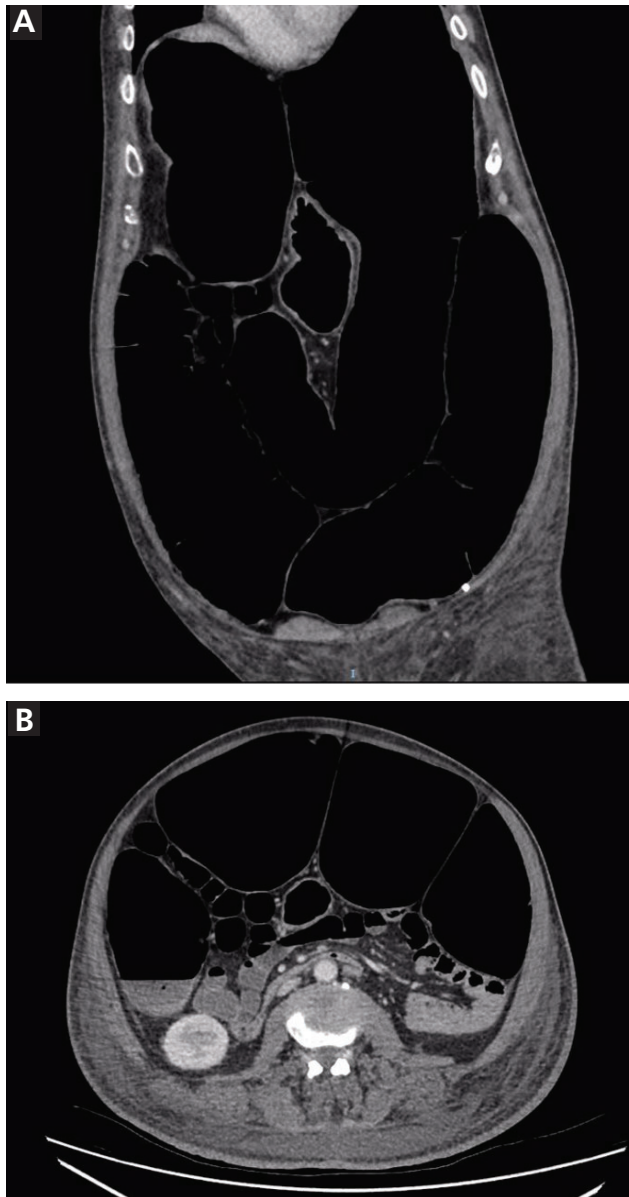


Figure 2. Computed tomography with contrast showed massive dilatation of the entire colon in (A) coronal and (B) axial views, with some areas having a maximum diameter of 12 cm. There is no mass or transition point, confirming a diagnosis of acute colonic pseudo-obstruction.

bradycardia and arrhythmias; hence, it should be given only if cardiac monitoring is available.

If neostigmine is contraindicated, endoscopic decompression is recommended and can resolve the problem in more than 90% of cases.^{5,6} However, the therapeutic window for this intervention is narrow, and delayed decompression increases the risk of perforation. Endo-

scopic decompression also entails a risk of perforation of about 2%.⁷

If all other treatments fail, or if the patient's condition deteriorates, surgery is indicated. While surgery offers definitive resolution, it carries a high risk of morbidity and mortality, particularly in elderly or very sick patients.⁶

Overall, management follows a stepwise approach to maximize resolution while minimizing invasiveness, risk of recurrence, and complications.³

■ OUR PATIENT'S COURSE

Digging deeper into our patient's history revealed that he had experienced colonic pseudo-obstruction once before after another operation requiring general anesthesia. Rigid and flexible sigmoidoscopy were performed, leading to partial relief of his discomfort and evacuation of 500 mL of liquid stool.

One week after the left femur operation, he needed to undergo revision of his intramedullary nail, after which the abdominal distension recurred. Erythromycin was commenced to promote gastric motility, and a flatus tube was placed, which relieved the distension within several days. ■

■ DISCLOSURES

The authors report no relevant financial relationships which, in the context of their contributions, could be perceived as a potential conflict of interest.

■ REFERENCES

1. Jaffe T, Thompson WM. Large-bowel obstruction in the adult: classic radiographic and CT findings, etiology, and mimics. *Radiology* 2015; 275(3):651–663. doi:10.1148/radiol.2015140916
2. Wells CI, O'Grady G, Bissett IP. Acute colonic pseudo-obstruction: a systematic review of aetiology and mechanisms. *World J Gastroenterol* 2017; 23(30):5634–5644. doi:10.3748/wjg.v23.i30.5634
3. Sloyer AF, Panella VS, Demas BE, et al. Ogilvie's syndrome. Successful management without colonoscopy. *Dig Dis Sci* 1988; 33(11):1391–1396. doi:10.1007/BF01536993
4. Valle RG, Godoy FL. Neostigmine for acute colonic pseudo-obstruction: a meta-analysis. *Ann Med Surg (Lond)* 2014; 3(3):60–64. doi:10.1016/j.amsu.2014.04.002
5. Liu JJ, Venkatesh V, Gao J, Adler E, Brenner DM. Efficacy and safety of neostigmine and decompressive colonoscopy for acute colonic pseudo-obstruction: a single-center analysis. *Gastroenterology Res* 2021; 14(3):157–164. doi:10.14740/gr1394
6. Naveed M, Jamil LH, Fujii-Lau LL, et al. American Society for Gastrointestinal Endoscopy guideline on the role of endoscopy in the management of acute colonic pseudo-obstruction and colonic volvulus. *Gastrointest Endosc* 2020; 91(2):228–235. doi:10.1016/j.gie.2019.09.007
7. Belle S. Endoscopic decompression in colonic distension. *Visc Med* 2021; 37(2):142–148. doi:10.1159/000514799

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