

## Ogilvie's Syndrome Resistant to Medical and Endoscopic Management: A Case of the Black Cecum

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### Abstract

Acute colonic pseudo-obstruction (ACPO), also known as Ogilvie's Syndrome, is a rare finding of colonic dilatation in the absence of internal and external mechanical obstruction. This can occur after major trauma, orthopedic surgeries, hemorrhage, sepsis, and from many other causes. Typically ACPO can be managed medically with nasogastric tube decompression, repositioning, neostigmine, and endoscopic decompression. Invasive, surgical intervention is rarely needed, but can be justified with concern for bowel necrosis. We present a case of ACPO after traumatic injuries that was resistant to conservative medical therapy. A 67-year-old male presented to the trauma ICU after a fall. The patient developed acute nausea, vomiting, and abdominal pain three days after admission. Abdominal films were concerning for acute colonic distention without evidence of obstruction. Endoscopy was revealing for diffuse necrosis with friable mucosa. The patient was resistant to medical therapy and necessitated hemicolectomy, which showed transmural, ischemic bowel changes, consistent with ACPO. This scenario demonstrates a unique presentation and course of ACPO and impressive endoscopic findings of bowel necrosis.

**Keywords:** Endoscopy; Obstruction; Ogilvie's; Ischemia

### Introduction

Acute colonic pseudo-obstruction (ACPO), also known as Ogilvie's Syndrome, is colonic dilatation in absence of an anatomical lesion that obstructs flow. It usually occurs in the setting of trauma, especially with fractures, and after major surgeries, though it can be from various other etiologies such as sepsis, hemorrhage, malignancy, etc. Though quite rare, it represents a significant post-operative and ICU morbidity. The rate of spontaneous perforation is around 3% to 15% and the mortality rate exceeds 50% [1]. We present a case of pseudo-obstruction resistant to medical therapy.

### Case Presentation

A 67-year-old male presented to the trauma ICU after a fall. He had multiple rib fractures, a comminuted clavicular fracture, and a splenic laceration. On hospital day 3, he developed nausea, vomiting, and progressive abdominal distention. Abdominal films showed cecal dilation of 12 cm and further dilated ascending colon, without features of obstruction. The patient was managed with nasogastric tube decompression without improvement, prompting therapy with neostigmine, with marginal clinical and radiological response. Colonoscopy on hospital day 6 for decompressive purposes revealed gaseous distention in the cecum with necrotic-looking friable mucosa, which was decompressed (Figure 1). Repeat X-ray showed significant decompression. The following day, he developed rapid worsening of abdominal pain and distention. Abdominal CT

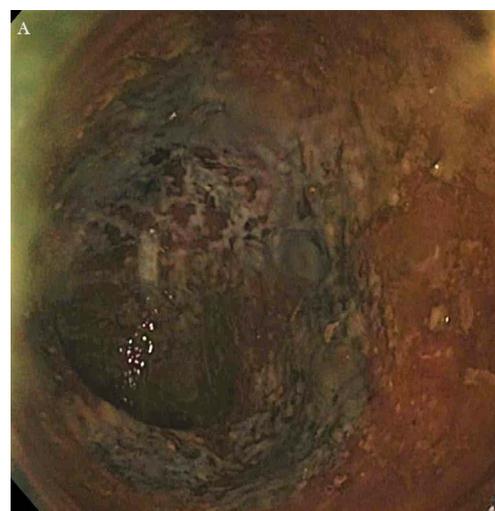
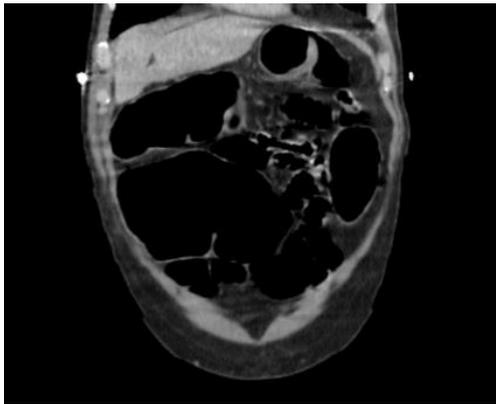


Figure 1: Colonoscopy on day 6.

scan demonstrated gas re-accumulation, with further dilation of the cecum (Figure 2). Colonoscopy on hospital day 7 demonstrated pancolonic dilatation, a diffuse area of severely friable mucosa, and contact bleeding in the ascending colon (Figure 3). Surgical evaluation exposed full-thickness necrosis of the cecum, without perforation. Pathology specimen

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**Figure 2:** Repeat X-ray showing significant decompression.



**Figure 3:** Colonoscopy on day 7.

from right hemicolectomy revealed ischemic colitis with transmural inflammation. The patient expired in the ICU, two weeks after right hemicolectomy, secondary to sepsis and respiratory failure.

### Discussion

Ogilvie's syndrome is a rare clinical scenario that typically presents with signs and symptoms of colonic obstruction

such as nausea, vomiting, and abdominal distension. Abdominal imaging commonly demonstrates dilated loops or segments of large bowel. Pathophysiology is unclear, but it is postulated to be an imbalance in gastrointestinal neuronal signaling. This is supported by the fact that neostigmine can improve propagation and reduce dilatation [2,3]. Initial conservative measures include nasogastric tube placement, rectal tube insertion, limitation of narcotics use, repositioning of patient, and correction of electrolyte abnormalities. Those that fail medical management may require further endoscopic intervention, and potentially, require surgery [4,5]. This case highlights the importance of early recognition, as the patient may benefit from medical management, only. Delay in diagnosis and, therefore, treatment, may lead to feared complications, such as ischemic bowel and/or perforation.

### Author Contributions

M Toschi and G Salem wrote the manuscript. G Salem obtained the images from endoscopy. W Tierney was the editor and is the article guarantor.

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