DOI: 10.4274/tjcd.galenos.2021.2021-4-8
Turk J Colorectal Dis 2022;32:73-75

CASE REPORT

A Rare Cause of Ileus: Acute Idiopathic Colonic Pseudo-Obstruction (Ogilvie Syndrome)

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ABSTRACT

Acute idiopathic colonic pseudo-obstruction, also known as Ogilvie syndrome, is a rare disease characterized by acute dilation of the colon without a mechanical cause. Although its pathogenesis is not clearly known, it is thought that the main underlying cause is a defect in autonomic innervations. The etiology is multifactorial, but it usually occurs in critically ill, hospitalized patients, patients with trauma, patients who have undergone surgery, and in association with electrolyte disturbances. The most worrying complications of the disease are ischemia and perforation. The first step in treatment is the conservative approach. In patients resistant to medical therapy, surgical intervention is necessary if there are signs of colonic ischemia or perforation. In this article, a patient with Ogilvie syndrome causing ileus is presented.

Keywords: Ileus, Ogilvie syndrome, acute idiopathic colonic pseudo-obstruction

Introduction

Acute idiopathic colonic pseudo-obstruction (AICPO), also known as Ogilvie syndrome, is a rare disease characterized by acute dilation of the colon without a mechanical cause. It was first described by Sir William Ogilvie in 1948.[1]

Although the pathogenesis of AICPO is not clearly known, it is thought to result from a defect in the autonomic regulation of colonic motor function. Etiology includes various conditions, such as surgery, trauma, infection, cardiac, renal, neurological, metabolic causes, drugs, malignancy, and major burns.[2]

Diagnosis is made clinically and radiologically. Appropriate conservative measures, pharmacological treatment, colonoscopic decompression, and surgery are all used in the treatment of AICPO.[3]

The diagnosis of AICPO is difficult and often delayed. Early diagnosis and treatment are important to minimize morbidity and mortality. In this article, a patient with AICPO causing ileus is presented.

Case Report

A 54-year-old male patient presented to the emergency department with complaints of abdominal pain, swelling in the abdomen, and inability to pass gas and stool. In his anamnesis, it was learned that he was admitted to the hospital several times with the same complaints and was discharged after supportive treatment was given and an outpatient clinic appointment was offered. On physical examination, severe respiratory distress, generalized abdominal tenderness, rebound, excessive distension and tympanism were present. In terms of laboratory results, biochemistry findings were within normal limits. However, hematological parameters were deranged, including anemia (hemoglobin: 10.5 g/dL), leukocytosis (leukocyte count: 11,720/mm^3) and thrombocytosis (platelet count: 508,000/mm^3). Widespread dilated colon loops were observed in the entire colon on standing direct abdominal X-ray (Figure 1). On computed tomography (CT), severe dilation in the colon segments, decrease in the volume of the right lung in the inferior thoracic aperture, increased compensatory aeration in the left lung, and displacement of the heart to the right were observed (Figure 2, 3). The rectum was markedly wide and no obstructive masses were detected. The patient underwent emergency surgery with the diagnosis of ileus. During surgery, it was observed that the entire colon was excessively dilated and pressed on the thorax. Total abdominal colectomy, ileal J pouch, ileorectal anastomosis, and diverting loop ileostomy were performed. Informed consent was obtained.

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Received: 07.05.2021 **Accepted:** 10.06.2021

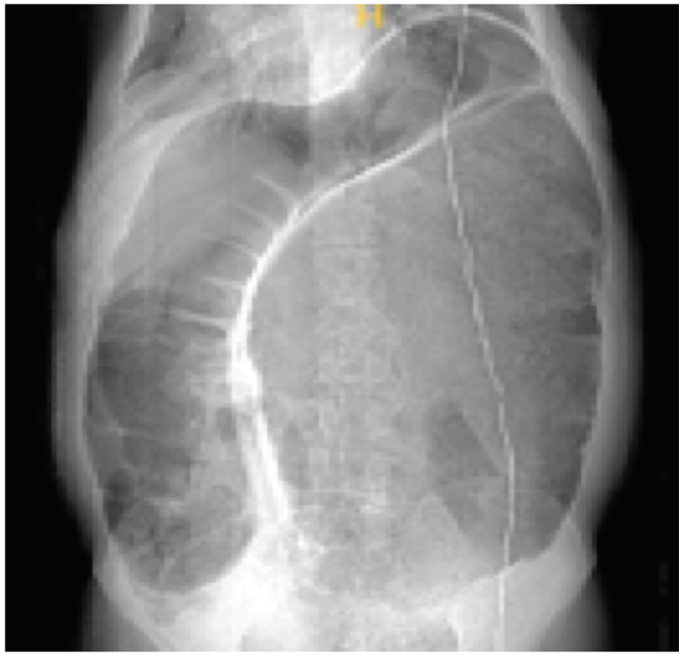

Figure 1. ADBG

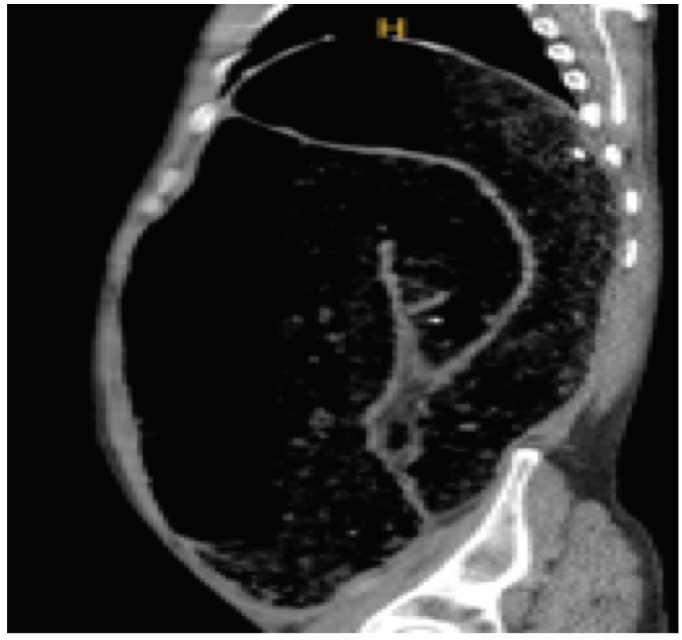

Figure 3. CT: Dilated megacolon
CT: Computed tomography

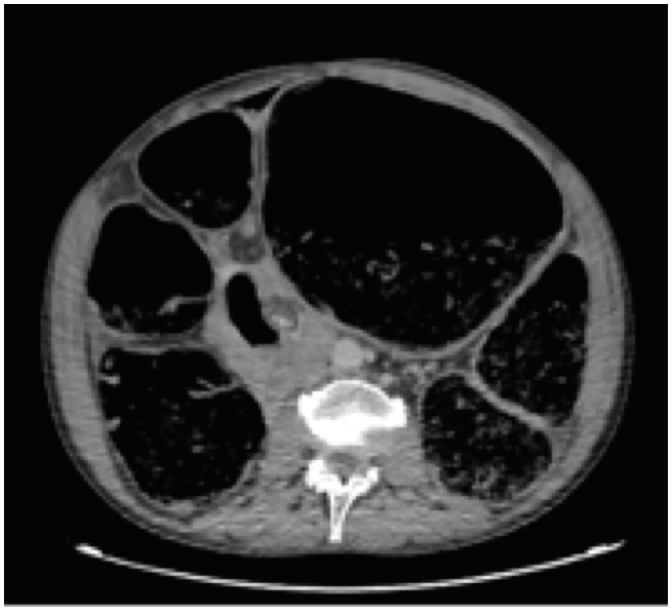

Figure 2. CT: Dilated megacolon
CT: Computed tomography

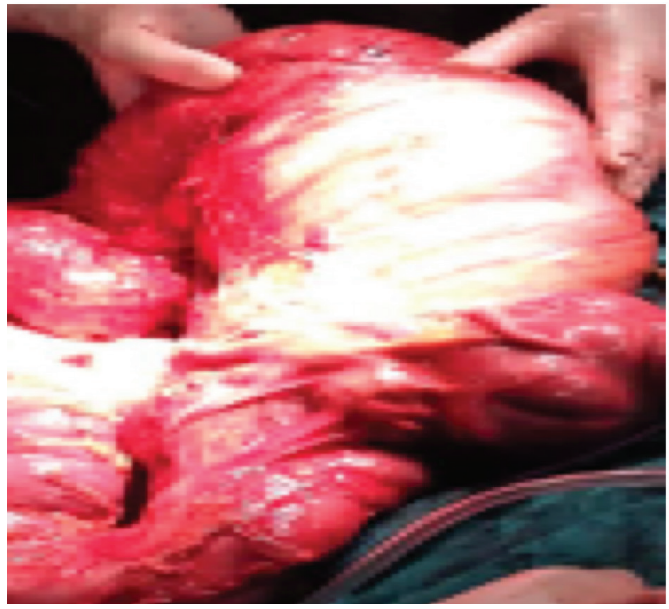

Figure 4. Intraoperative

Discussion

AICPO is a rare condition characterized by signs and symptoms of colonic obstruction without a mechanical cause. AICPO probably results from an imbalance in autonomic regulation of the distal colon. The main clinical feature in patients with AICPO is gradually increasing abdominal distension. Abdominal pain, nausea, vomiting and dyspnea are less common. It is more common in men and patients over 50 years of age. Historically, the mortality rate has been shown to be 25-31%. Although it is usually seen in the cecum and right colon, the dilation may also extend into the rectum.[4] Our patient was male and aged 54 which was consistent with the common characteristics of Ogilvie syndrome. Widespread dilations, kinks and compression of the diaphragm were observed in the entire colon, especially in the left colon, intraoperatively (Figure 4, 5). The most important mortal complications are ischemia and perforation. Spontaneous perforation has been reported in 3-15% of patients, and the mortality rate in these patients is over 40%.[5]

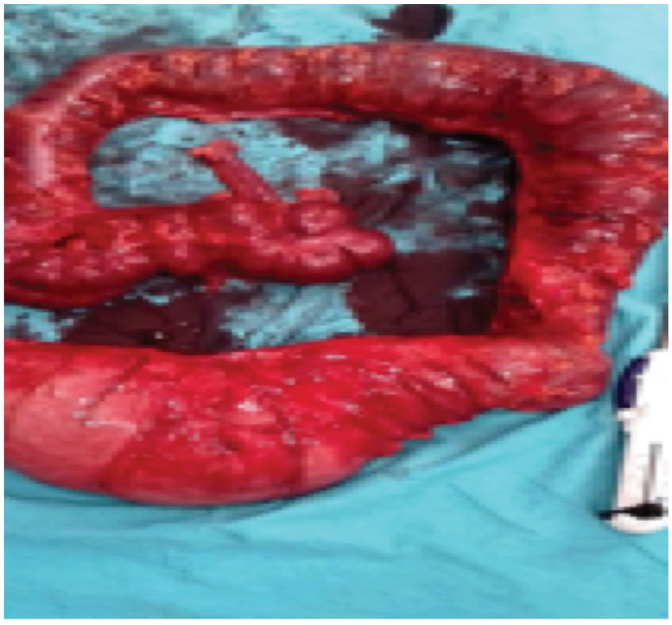

Figure 5. Postoperative

In general, it is not always possible to make a preoperative diagnosis in patients with Ogilvie syndrome. Contrast enema is the gold standard for excluding mechanical obstruction and confirming the diagnosis. CT may be useful in excluding mechanical causes and in those who cannot have a contrast enema. Colonoscopy is useful in the diagnosis and treatment of colonic lesions and decompression of the dilated colon.[6] Manometry is generally useful in determining the severity of pseudo-obstruction in children, especially in children with Hirschsprung's disease.[7]

Patients are treated conservatively if there is no sign of ischemia or perforation, and neostigmine is effective in most of the patients. For pharmacological therapy, neostigmine is given at a dose of 2 mg intravenously over 5 minutes, under continuous cardiac monitoring. The effect of neostigmine lasts between 30-120 minutes.[8] Another option is colonoscopic decompression. In patients resistant to medical therapy, if there are signs of colonic ischemia or perforation, surgical intervention is required with a high mortality rate. Worsening abdominal pain, fever, leukocytosis and lactic acidosis should raise the suspicion of mucosal ischemia. Full-thickness ischemia manifests with peritonitis.[9] Pneumatosis and/or gas in the mesenteric veins are symptoms associated with intestinal wall thickening and intestinal infarction.[10]

Surgery is indicated in medically refractory patients, if the cecum diameter is >12 cm, and if there are signs of colonic ischemia or perforation. Depending on the patient's clinical condition and intraoperative findings, surgical options include cecostomy, colectomy + primary anastomosis + diverting ileostomy, and subtotal colectomy with Hartmann pouch.[11] In our patient, emergency surgical treatment was performed because the patient had dyspnea and findings indicating peritoneal irritation, and the diameter of the colon on CT was greater than 15 cm. Differential diagnosis from adult Hirschsprung's disease was made, based on the pathology result. In our patient, no known etiological cause could be found and it was accepted as an idiopathic form. In this patient, total abdominal colectomy, ileal J pouch, ileorectal anastomosis, and diverting loop ileostomy were performed.

Early diagnosis and treatment are critical to minimize morbidity and mortality.

Ethics

Informed Consent: It was obtained.

Peer-review: Externally and internally peer-reviewed.

Authorship Contributions

Surgical and Medical Practices: R.Ç., İ.Ö., Concept: R.Ç., Design: R.Ç., Data Collection or Processing: R.Ç., Analysis or Interpretation: R.Ç., Literature Search: R.Ç., Writing: R.Ç.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study received no financial support.

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