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Acute Colonic Pseudo-obstruction (Ogilvie Syndrome) after Total Hip Arthroplasty: A Case Report.

Abstract

Acute colonic pseudo-obstruction, also known as Ogilvie syndrome, is a rare postoperative complication characterized by marked colonic dilatation in the absence of a mechanical obstruction. It has been reported after severe medical illness, abdominal surgery, obstetric procedures, trauma, and major orthopedic surgery. Early recognition is essential because delayed diagnosis and treatment may lead to colonic ischemia or cecal perforation. We report the case of a 59-year-old man who developed occlusive symptoms two days after total hip arthroplasty. Abdominopelvic computed tomography suggested a large-bowel obstruction proximal to an apparent rectal wall thickening, leading to exploratory laparotomy. Intraoperatively, diffuse dilatation of the colon and distal ileum was found without any mechanical obstacle, supporting the diagnosis of Ogilvie syndrome. A decompressive cecostomy was performed, followed by a favorable postoperative outcome. This case highlights the diagnostic difficulty of Ogilvie syndrome after orthopedic surgery and emphasizes the importance of considering this condition in any postoperative patient presenting with abdominal distension and features of bowel obstruction.

Keywords

Ogilvie syndrome; acute colonic pseudo-obstruction; total hip arthroplasty; postoperative complication; cecostomy; case report.

Introduction

Acute colonic pseudo-obstruction (ACPO), commonly referred to as Ogilvie syndrome, is defined by acute and marked colonic dilatation without a demonstrable mechanical cause. Since its original description by Sir Heneage Ogilvie in 1948, the syndrome has been recognized as an important cause of postoperative abdominal distension and bowel obstruction-like presentation.

The condition usually occurs in older patients with significant comorbidities or following a precipitating event such as surgery, trauma, sepsis, pregnancy, neurological disease, or major orthopedic intervention. Hip and knee arthroplasty are recognized but uncommon triggers.

31 The pathophysiology remains incompletely understood and is thought to involve autonomic
32 dysregulation of colonic motility, with sympathetic overactivity, parasympathetic
33 dysfunction, or both.

34 Because progressive colonic dilatation may result in ischemia or perforation, early diagnosis
35 and appropriate management are crucial. We report a case of postoperative Ogilvie syndrome
36 occurring shortly after total hip arthroplasty and discuss the diagnostic pitfalls and therapeutic
37 implications.

38 **Case Presentation**

39 A 59-year-old man with an 8-year history of hypertension underwent total hip arthroplasty.
40 On postoperative day 2, he developed features of intestinal obstruction, including cessation of
41 stool and flatus, vomiting, and lower gastrointestinal bleeding. He remained afebrile and in
42 relatively preserved general condition.

43 Four days after the orthopedic procedure, he was admitted for further evaluation. On
44 examination, he was conscious, hemodynamically stable, and respiratory stable. Abdominal
45 examination revealed distension without hepatosplenomegaly. Digital rectal examination
46 showed a healthy anal margin, normal sphincter tone, and stool on the examining finger. No
47 abdominal wall hernia was identified, and lymph node areas were unremarkable.

48 Abdominopelvic computed tomography suggested a mechanical large-bowel obstruction
49 proximal to an apparent budding rectal wall thickening. Bilateral renal microlithiasis without
50 excretory tract obstruction was also noted. Because of the radiologic suspicion of an
51 obstructive rectal lesion, the patient underwent exploratory laparotomy.

52 Through a midline incision, no peritoneal effusion was found. Surgical exploration revealed
53 diffuse dilatation of the small bowel, measuring approximately 4 cm, marked cecal dilatation
54 of approximately 10 cm, and dilatation of the entire colon. No digestive wall thickening and
55 no mechanical obstacle were identified. On the basis of these operative findings, acute
56 colonic pseudo-obstruction was retained as the final diagnosis. A decompressive cecostomy
57 was performed.

58 The postoperative course was favorable, with progressive clinical improvement after
59 decompression.

60 Discussion

61 Ogilvie syndrome is an uncommon but potentially serious postoperative complication that
62 clinically mimics mechanical large-bowel obstruction despite the absence of a true
63 obstructive lesion. It has been described after major orthopedic procedures, particularly hip
64 and knee arthroplasty. Reported risk factors include advanced age, male sex, comorbid
65 illness, electrolyte imbalance, immobility, and exposure to drugs that reduce intestinal
66 motility.

67 In the present case, the onset of symptoms on postoperative day 2 after total hip arthroplasty
68 is compatible with the early postoperative timing reported in the literature. The patient
69 presented with abdominal distension and occlusive symptoms while maintaining an initially
70 stable general condition, a pattern that may delay recognition of the syndrome.

71 Cross-sectional imaging is essential to exclude mechanical obstruction, ischemia, or
72 perforation. However, radiologic interpretation can be challenging. In this patient, computed
73 tomography suggested a rectal wall abnormality and therefore raised suspicion of true
74 mechanical obstruction. The final diagnosis was made intraoperatively when diffuse bowel
75 dilatation was found without any mechanical cause.

76 Management depends on the degree of colonic dilatation, clinical severity, and the presence
77 of complications. Initial conservative treatment includes bowel rest, nasogastric or rectal
78 decompression, correction of electrolyte abnormalities, withdrawal of precipitating
79 medications, mobilization when possible, and close clinical and radiologic monitoring.
80 Pharmacologic treatment with neostigmine may be considered in selected patients without
81 contraindications when conservative measures fail. Colonoscopic decompression is another
82 therapeutic option. Surgery is generally reserved for suspected ischemia or perforation,
83 failure of less invasive treatment, or diagnostic uncertainty.

84 In this case, surgical management was chosen because imaging strongly suggested a
85 mechanical obstruction. Decompressive cecostomy led to a favorable outcome. This
86 observation underlines the need to include Ogilvie syndrome in the differential diagnosis of
87 postoperative abdominal distension after hip arthroplasty, even when imaging appears to
88 suggest mechanical obstruction.

89 **Conclusion**

90 Ogilvie syndrome is a rare but potentially life-threatening cause of postoperative bowel
91 obstruction after total hip arthroplasty. Its presentation may closely mimic true mechanical
92 obstruction, making diagnosis difficult. Clinicians involved in perioperative and
93 postoperative care should maintain a high index of suspicion when abdominal distension and
94 occlusive symptoms occur after major orthopedic surgery. Early recognition and appropriate
95 management are essential to reduce the risk of cecal ischemia, perforation, and mortality.

96 **Learning Points**

- 97 • Ogilvie syndrome should be considered in patients with postoperative abdominal
98 distension after major orthopedic surgery.
- 99 • Imaging may be misleading and may not always clearly distinguish pseudo-obstruction
100 from true mechanical obstruction.
- 101 • Early recognition is essential because delayed treatment increases the risk of colonic
102 ischemia and cecal perforation.
- 103 • Management should follow a stepwise approach, but surgery may be required when
104 complications or diagnostic uncertainty are present.



106

107 **Figure 1.** Preoperative abdominal computed tomography showing marked colonic distension
108 without a clearly identified mechanical transition point.



109

110 **Figure 2.** Intraoperative finding of diffuse bowel distension without evidence of an
111 obstructive lesion, supporting the diagnosis of acute colonic pseudo-obstruction.

112 **Declarations**

113 **Ethical approval**

114 [To be completed according to local requirements. For a single retrospective case report, state
115 whether institutional ethical approval was waived or not required.]

116 **Consent for publication**

117 [To be completed before submission. Example: Written informed consent was obtained from
118 the patient for publication of this case report and accompanying images.]

119 **Competing interests**

120 The authors declare that they have no competing interests.

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123 **Authors' contributions**

124 [To be completed: describe the contribution of each author.]

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