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Clinical observations

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COLONIC PSEUDO-OBSTRUCTION: OGILVIE'S SYNDROME

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Acute colonic pseudo-obstruction (Ogilvie's syndrome) is a rare disorder associated with spontaneous colonic dilatation with signs and symptoms of mechanical bowel obstruction and dilatation on imaging. We report a 37 year-old female, with three-month history of Caesarian Section at 38th week of pregnancy due to fetal malpresentation. Abdominal CT-scan revealed chronic diffuse colonic distention, 17 cm in diameter. No cause of obstruction could be determined. A diagnosis of Ogilvie's syndrome was made. The increased size of the colon with leukocytosis warranted urgent colonoscopic decompression. The patient recovered well. If not managed appropriately, Ogilvie's syndrome can progress to bowel ischemia and perforation with significant morbidity and mortality. The first line of treatment of early disease is conservative management with neostigmine or colonoscopic decompression. Our purpose is to review the diagnosis and management of this potentially lethal rare condition.

Keywords: *acute colonic pseudo-obstruction; Ogilvie's syndrome; colonic dilatation; colonoscopic decompression; Caesarian section.*

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ПСЕВДООБСТРУКЦИЯ ТОЛСТОЙ КИШКИ (СИНДРОМ ОГИЛВИ)

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Острая псевдообструкция толстой кишки (синдром Огилви) представляет собой редкое заболевание, обусловленное спонтанным расширением толстой кишки с проявлениями механической непроходимости кишечника и дилатации при визуализации.
Мы представляем описание 37-летней женщины, у которой за 3 месяца до обращения на 38-й неделе беременности выполнено кесарево сечение в связи с патологическим предлежанием плода. При компьютерной томографии брюшной полости выявлено хроническое диффузное расширение толстой кишки диаметром 17 см. Явных причин непроходимости обнаружить не удалось. Поставлен диагноз синдрома Огилви. В связи с растяжением кишечника и лейкоцитозом проведена экстренная эндоскопическая декомпрессия толстой кишки. Побочных эффектов не отмечено. Без соответствующего лечения синдрома Огилви возможно прогрессирование патологического процесса с развитием гипоксии кишечника и перфорации, что связано с риском резкого ухудшения состояния и гибели больного. Первая линия ведения больного на ранних стадиях заболевания предполагает консервативное лечение неостигмином или колоноскопическую декомпрессию. Цель нашего сообщения состоит в обзоре диагностики и ведения больных с этим редким заболеванием, связанным с риском гибели больного.

Ключевые слова: *острая псевдообструкция толстого кишечника; синдром Огилви; дилатация толстой кишки; колоноскопическая декомпрессия; кесарево сечение.*

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Introduction

Acute colonic pseudo-obstruction (Ogilvie's syndrome) is a rare disorder associated with spontaneous dilatation of the colon with signs and symptoms of a mechanical obstruction in the absence of any anatomic lesion that causes an obstruction to the flow of intestinal contents. Pseudo-obstruction may be acute or chronic and is characterized by the presence of bowel dilation on imaging [1]. Acute colonic pseudo-obstruction usually occurs in patients who have been institutionalized or hospitalized and is associated with recent surgery or severe illness in conjunction with a metabolic imbalance or administration of medication which decrease bowel motility [2, 3]. Acute colonic pseudo-obstruction usually involves the cecum and right hemicolon

and can occasionally extend to the rectum. Acute colonic pseudo-obstruction is seen more commonly in men and in patients more than 60 years of age [2]. However, cases in which children developed acute colonic pseudo-obstruction have also been reported [4]. Abdominal surgery can lead to a rare complication of acute colonic pseudo-obstruction [5]. The clinical characteristics, diagnostic methods, and management of Ogilvie's syndrome are reviewed in this case report.

Case Presentation

A 37 year-old female, with three-month history of Caesarian section at 38th week of pregnancy due to fetal malpresentation presented with recurrent abdominal distention and loose stool. She was tolerating her diet and denied nausea, vomiting and abdominal pain. On examination her vital signs were within normal limits, the abdomen was distended, tympanic, non-tender throughout, with no rebound or guarding. Blood tests, including *carcinogenic embryonic antigen*, were unremarkable except for slightly increased white blood cell count. An abdominal CT scan was done which revealed chronic diffuse colonic distention with a maximum diameter measuring approximately 17 cm and minor post-surgical changes. There was no small bowel distention. No cause of obstruction could be determined.

A diagnosis of Ogilvie's syndrome (acute pseudo-obstruction) was made and surgery was consulted. The increased size of the colon with leukocytosis warranted urgent colonoscopic decompression. The patient recovered well after the procedure. She presented to the outpatient clinic 2 weeks later and was comfortable, tolerating oral feed. She was advised to ambulate several times a day and to sit on the commode several times a day. She was put on an extensive bowel regimen, which included daily enemas, daily Ducolox, Miralax two times a day and Magnesium Citrate weekly to encourage evacuation an average of twice a day. A detailed discussion regarding surgical options including venting procedures and extensive resection in case of severe pain symptoms or obstructive symptoms was done.

Discussion

The exact mechanism by which acute colonic pseudo-obstruction causes colonic dilation in patients is unknown. Impairment of the autonomic nervous system is suggested due to association with pharmacologic agents, spinal anesthesia, and trauma. Parasympathetic fibers from S2 to S4, when interrupted leave an atonic distal colon and a functional proximal obstruction [6]. However, there is no proposed mechanism to explain why patients have colonic dilation without any obvious involvement of the parasympathetic nerves.

Increasing colonic diameter in patients with acute colonic pseudo-obstruction accelerates the rise in tension on the colonic wall, increasing the risk of colonic ischemia and perforation. When the cecal diameter exceeds 10 to 12 cm and when the distention has been present for greater than six days the risk of colonic perforation increases [7]. It has been noted that the duration of dilation possibly poses a greater risk as compared to the absolute diameter of the colon [8].

A clinical feature that is seen most commonly in patients with acute colonic pseudo-obstruction is abdominal distention and it usually occurs gradually over 3 to 7 days but may develop rapidly within 24 to 48 hours. Associated abdominal pain is seen in approximately 80 percent of patients. Up to 60 percent of patients may have nausea and vomiting. Constipation and, unexpectedly, diarrhea have also been reported in approximately 50 and 40 percent of patients, respectively. Abdominal distention in rare cases can cause dyspnea [9]. On physical examination, the abdomen is tympanic, with bowel sounds heard in almost 90 percent of patients [2]. Mild abdominal tenderness on physical examination is seen in approximately 65 percent of patients with a viable colon. However, marked abdominal tenderness, the presence of fever, and peritoneal signs (e.g., rigidity, guarding and rebound tenderness) are indicative of colonic ischemia or perforation or their impending development.

Management is initially conservative with detection and correction of the underlying cause. A nasogastric or rectal tube should be placed. Medications that can cause constipation should be stopped. Patients should be encouraged to ambulate in an effort to promote expulsion of colonic gas. Repeated enemas must be administered if there is an evidence of fecal impaction. Oral laxatives are not recommended and may cause perforation and electrolytes abnormalities [10, 11]. Neostigmine acts to improve ineffective colonic motility caused by either parasympathetic dysfunction or excessive sympathetic stimulation or both. *Intensive care unit placement* with continuous cardiac monitoring should be done due to the risk of bradycardia, with atropine readily available for urgent reversibility [7].

Colonoscopic decompression is preferred when the cecum when dilated > 9 cm, as it reduces the risk of ischemia and perforation. However, colonoscopic decompression has its own risks. Not only is it a difficult procedure to perform in pseudo-obstruction; it also increases the chance of perforation in Ogilvie's syndrome when compared to general population, as well as the risk of recurrence. Neostigmine administered in combination with decompression reduces the risk of recurrence [12]. Fifteen percent of patients have spontaneous perforation with an increase in cecal diameter of > 9 cm, associated with a very high mortality rate [13]. Findings suggestive of bowel ischemia with a cecal diameter of > 9 cm require immediate surgical intervention [14].

Conclusion

Acute colonic pseudo-obstruction (Ogilvie's syndrome) is a rare disorder associated with spontaneous dilatation of the colon with signs and symptoms of a mechanical obstruction in the absence of obstructive lesion on imaging. It occurs more commonly in males above 60 years of age or in young patients with recent history of surgical interventions. If not treated appropriately, Ogilvie's syndrome can progress to bowel ischemia and perforation with significant morbidity and mortality. The early disease requires con-

servative management with neostigmine or colonoscopic decompression as the first line of treatment. Failure of conservative management with a cecal diameter of > 9 cm and clinical suspicion of bowel ischemia or perforation requires urgent surgical intervention.

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