Acute Colonic Pseudo-obstruction Caused by Acute Gastroenteritis

A Case Report

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ABSTRACT

Acute colonic pseudo-obstruction is known as Ogilvie's syndrome with marked colonic distension in the absence of any mechanical obstruction. The mechanism of this disease is still unclear. Acute colonic pseudo-obstruction may be caused by infection, traumatic disease, postoperation or neurological disease. The index patient presented with acute colonic pseudo-obstruction secondary to acute gastroenteritis. She responded to conservative treatment including diet restriction, gastrointestinal decompression, intravenous fluid and electrolyte supplement. Therefore, early diagnosis and conservative treatment are important for acute colonic pseudo-obstruction, or colectomy is inevitable.

Keywords: Acute colonic pseudo-obstruction, gastroenteritis conservative treatment, Ogilvie's syndrome

La Pseudo-obstrucción Aguda del Colon Causada por Gastroenteritis Aguda

un Reporte de Caso

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RESUMEN

La pseudo-obstrucción aguda del colon que se conoce como síndrome de Ogilvie, se caracteriza por una marcada distensión del colon sin presencia de obstrucción mecánica alguna. El mecanismo de esta enfermedad no está claro todavía. La pseudo-obstrucción aguda del colon puede ser causada por infección, enfermedad traumática, postoperatorio, o enfermedad neurológica. El paciente de índice presentó pseudo-obstrucción aguda del colon secundaria a una gastroenteritis aguda. La paciente respondió al tratamiento conservador, incluyendo restricción dietética, descompresión gastrointestinal, líquidos por vía intravenosa, y suplementos de electrolitos. Por lo tanto, el diagnóstico precoz y el tratamiento conservador son importantes para la pseudo-obstrucción aguda del colon. De lo contrario, una colectomía es inevitable.

Palabras claves: Pseudo-obstrucción aguda del colon, tratamiento conservador de la gastroenteritis, síndrome de Ogilvie

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INTRODUCTION

Colonic pseudo-obstruction (CPO) is characterized by severe dilatation of the colon without any provable mechanical obstruction in the previously healthy colon. Acute colonic pseudo-obstruction (ACPO), also known as Oglivie's syndrome (1), presents with abdominal pain and abnormal intestinal motility and is not uncommon in patients with critical illnesses, electrolyte imbalances, anticholinergic medication regimens and recent surgery. Conservative treatment is recommended in the first instance. Otherwise, surgery is the only treatment for the cases with colonic necrosis or perforation. So, it is important to improve outcome by early recognition.

CASE REPORT

A 63-year-old female presented with complaints of severe paroxysmal pain in the hypogastrium of four hours duration. The pain was acute in an onset, colicky, and gradually involved the whole of the abdomen. The patient had diarrhoea, nausea and recurrent episodes of nonbilious vomiting since the onset of pain. She had no history of other medical problems. Her body temperature was 38.5 ˚C and blood pressure was 138/85 mmHg.

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An abdominal examination detected abdominal distention, marked tenderness all over without rebound tenderness, and hypoactive bowel sounds. Laboratory findings: total leukocyte count: 10.11×10^9/L, neutrophil count: 8.00×10^9/L, serum potassium: 3.20 mmol/L, serum sodium: 125.0 mmol/L, serum chloride: 90.0 mmol/L, routine stool and faecal occult blood tests: negative, Vibrio cholerae detection: negative. The computed tomography (CT) of the whole abdomen showed severe dilatation and pneumatosis of the total colon in the absence of any obstructive lesion (Figure).

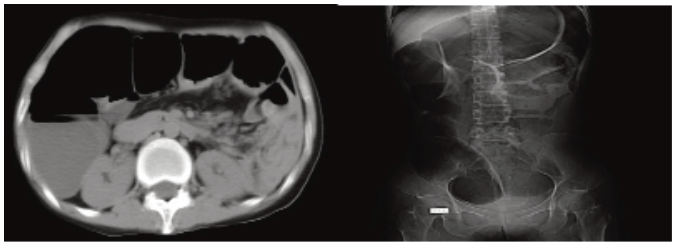

Figure: Computed tomography scan showed severe dilatation and pneumatosis of colon at the time of admission.

Based on the history and investigations, a clinical diagnosis of ACPO was made. She could not be fed until bowel sounds would have returned.

It was indispensable for her to receive conservative treatment with gastrointestinal decompression, intravenous fluid and electrolyte supplement. Because of the high body temperature and leukocyte count, she was treated with antibiotics (levofloxacin and sodium chloride injection, 500 mg once a day). The conservative treatment resulted in clinical improvement of the abdominal pain and distention and reduction of diarrhoea in 48 hours. The follow-up laboratory findings showed no abnormal changes in the electrolyte. Follow-up abdominal CT scan demonstrated no dilatation nor pneumatosis in the colon.

DISCUSSION

Ogilvie's syndrome is believed to be a functional disturbance in colonic motility. The pathophysiology of this disease is not entirely clear.

A variety of causes lead to the sympathetic and parasympathetic autonomic nervous system dysfunction which can lead to Ogilvie's syndrome (2). Usually, this syndrome is secondary to traumatic disease, postoperation, infection, metabolic diseases, neurological diseases, use of drugs *etc*. The diagnosis of Ogilvie's syndrome is based on the clinical and radiographic findings (3). The diagnostic criteria: (1) abdominal distension and pain, nausea and vomiting, status reduction, some patients may have diarrhoea (2) the main signs are abdominal distention, mild tenderness, without peritonitis diminished or absent bowel sounds (3) X-ray and CT scan demonstrate dilatation and pneumatosis of colon (4). No provable mechanical obstruction. Early recognition and treatment of this syndrome are important in order to improve the outcome. Supportive therapy should be the initial management. Improvement of clinical symptoms occurs in several days. However, if ischaemia or perforation occurs, surgery should be performed (4). In this patient, we believe the syndrome was related to acute gastroenteritis. We considered that intestinal infection and electrolyte disorder induced enteric nervous system imbalance, and further induced serious disorder of colon function. Although ACPO is well-known clinically, it remains poorly understood and continues to challenge physicians and surgeons in many respects. Therefore, we alert physicians to be aware of this disease in order to improve the outcome of ACPO.

AUTHORS' NOTE

The authors declare that they have no conflict of interest.

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