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Case Report

Intestinal pseudo-obstruction as the initial manifestation of systemic lupus erythematosus

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ABSTRACT

Small bowel obstruction is common in emergency departments. However, the exact cause of intestinal pseudo-obstruction (IPO) is often misdiagnosed. IPO is considered a severe manifestation of systemic lupus erythematosus (SLE). However, IPO is rare as the initial manifestation of SLE. This paper reports a female patient who presented with IPO as the initial manifestation and was ultimately diagnosed with SLE. The 31-year-old female was definitively diagnosed with SLE after IPO symptoms for 1 month. She then presented multiple organ dysfunction syndrome (MODS) leading to a poor prognosis. Patients with unexplained SBO symptoms should be aware of systemic diseases. Early diagnosis and prompt medical treatment are crucial to avoid unnecessary surgery and obtain satisfactory outcomes.

1. Case report

A 31-year-old female with no previous history of disease presented at our emergency department with recurrent abdominal pain and vomiting for 1 month. During this period, she was treated at two other hospitals three times, and each time was diagnosed with a small bowel obstruction and underwent exploratory laparotomy. However, her symptoms were not alleviated. On admission, a physical examination found her body temperature was 36.5 °C, pulse was 87 beats/min, respiratory rate was 22 beats/min, and blood pressure was 96/63 mmHg. Her abdomen was flat and soft with sluggish bowel sounds. She had a 12 cm surgical scar at the right abdomen with no obvious abdominal tenderness or rebound tenderness. Shifting dullness was negative. Laboratory tests showed her RBC was $4.3*10^9$/L, HGB was 59 g/L, and PLT was $103*10^{12}$/L. A routine urine examination found urine occult blood 3+ and urine protein 3+. She had ABO blood type B, Rh+, and irregular blood group antibody (+).

An abdominal X-ray showed sporadic air-fluid levels and dilated loops in the small bowels (Fig. 1). A chest and abdominal CT scan revealed bilateral lung infection, bilateral pleural effusion, pericardial effusion, splenomegaly, thickened intestinal walls, enlarged retroperitoneal lymph nodes, and pelvic effusion (Fig. 2). We successively treated the patient with somatostatin, albumin, imipenem-cilastatin sodium hydrate, and methylprednisolone. However, her symptoms were not relieved but aggravated. She had a fever (39 °C to 40 °C), vomiting, and diarrhea, was angry and irritable, and needed dopamine to maintain her blood pressure. Subsequently, a rheumatology examination reported anti-nuclear antibody 1:320 (+), anti-dsDNA antibody (+), anti-histone antibody (+), and anti-nucleosome antibody (+). The patient was ultimately diagnosed with systemic lupus erythematosus (SLE) as she met at least 6 of the diagnostic criteria. We subsequently treated her with a megadose of methylprednisolone, immunoglobulin, and imipenem-cilastatin sodium hydrate. Her condition deteriorated and she was transferred to the intensive care unit in a coma and with anisocoria. Her light reflection disappeared and she was breathing with ventilator controls. She was eventually discharged from our hospital because her guardian abandoned treatment.

2. Discussion

Small bowel obstruction (SBO) is common in emergency departments, and remains a challenge for most clinicians and surgeons. Intestinal pseudo-obstruction (IPO) is a severe form of gastrointestinal dysmotility with recurrent episodes of intestinal subocclusion mimicking a mechanical obstruction [1]. IPO is considered a severe manifestation of SLE characterized by clinical and radiological evidence of intestinal obstruction with no identifiable mechanical lesion [2]. The morbidity of SLE in Chinese females is 113/100,000. The prevalence of IPO in patients with SLE is 1.96% [3]. IPO as the initial manifestation of SLE often leads to a difficult diagnosis and delayed treatment [4].

The diagnosis of IPO is based on clinical reports. However, the symptoms associated with IPO are nonspecific, which can sometimes contribute to delays in recognizing the condition and obtaining a correct diagnosis [5]. In this report, the patient initially presented with symptoms of IPO and underwent surgery at her first hospital but the IPO symptoms continued. Although the she was hospitalized three times,

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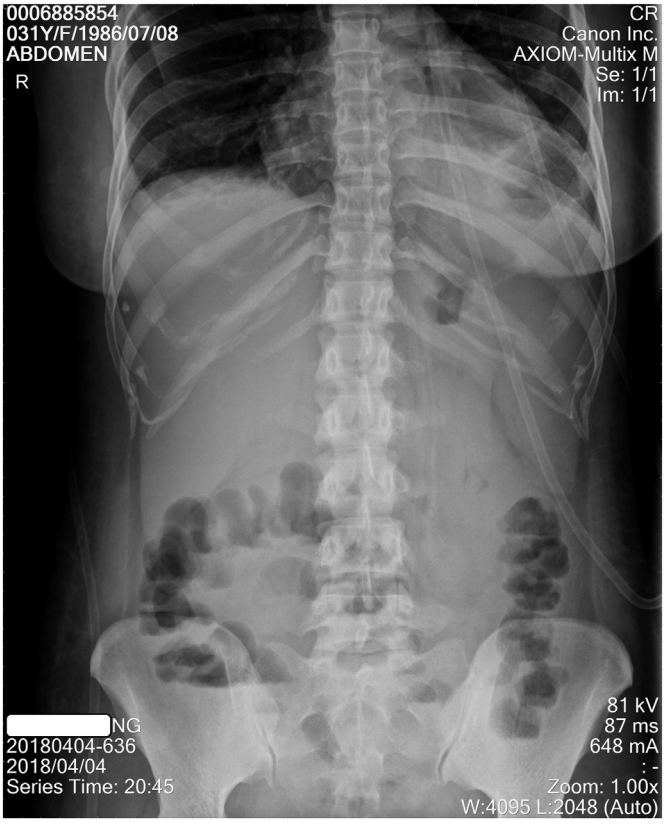

Fig. 1. Abdominal X-ray showing sporadic air-fluid levels and dilated loops in the small bowels.

she was not diagnosed until 1 month after the SLE symptoms appeared. Physicians at the first two hospitals did not conduct a rheumatoid examination. Diagnosing SLE is achieved via clinical findings and laboratory examinations. The results of anti-nuclear antibody 1:320 (+) and anti-dsDNA antibody (+) indicated a definitive diagnosis of SLE. Unfortunately, at that stage, the patient presented multiple organ dysfunction syndrome (MODS), leading to a poor prognosis. SLE is an autoimmune disease. The production of autoantibodies directly affects several organs. SLE is distinguished by periods of remission and relapse and may present various constitutional and organ-specific symptoms [6]. The in-hospital fatality rate of SLE patients with IPO is 7.1%, and the rate of misdiagnosis is approximately 78% [4].

High-dose steroids associated with other immunosuppressants are the treatment of choice for patients with IPO. Unfortunately, the patient in this report was diagnosed with SLE at the late stages. Although we administered high doses of methylprednisolone, methylprednisolone, and immunoglobulin in the emergency department and treated her aggressively in the ICU, her prognosis was poor.

In conclusion, IPO is rare as the initial manifestation of SLE, and the etiology remains unclear. Patients with unexplained SBO symptoms should be aware of the systemic diseases. Early diagnosis and prompt medical treatment are crucial to avoid unnecessary surgery and obtain satisfactory outcomes.

Acknowledgements

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Conflict of interest: The authors declare that they have no conflict of interest.

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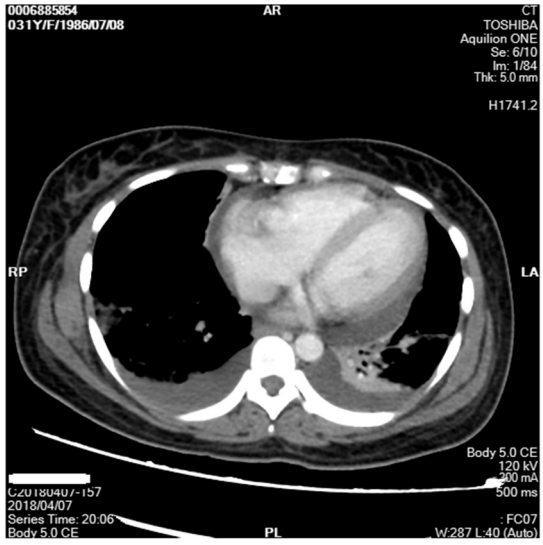

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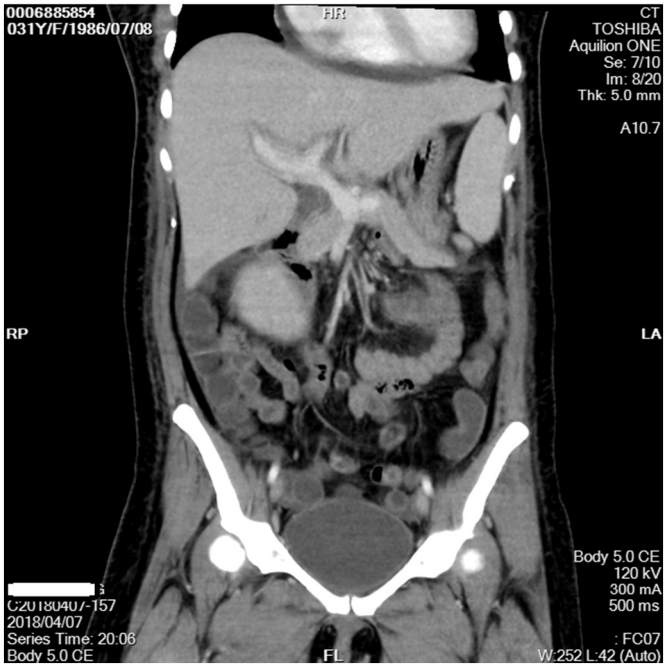

Fig. 2. Chest and abdominal CT scan showing bilateral lung infection, bilateral pleural effusion, pericardial effusion, splenomegaly, thickened intestinal walls, enlarged retroperitoneal lymph nodes, and pelvic effusion.

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