Perforated Jejunal Diverticulum in the Use of Mycophenolate Mofetil

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Abstract

Context: Jejunal diverticulosis is a rare disease. Common acute complications include diverticulitis, intestinal obstruction, bleeding and perforation. Gastrointestinal tract perforations have also been rarely observed in the use of mycophenolate mofetil. Case Report: We report a 44-year-old man with end-stage renal disease post failed kidney transplant on low-dose mycophenolate mofetil who presented with acute onset of abdominal pain. He was successfully given the diagnosis of perforated jejunal diverticulum. The patient successfully underwent a segmental jejunal resection and anastomosis. He unfortunately developed a recurrent jejunal perforation a month later and again had the second segmental jejunal resection operation. Mycophenolate mofetil then was discontinued. Conclusion: The present case illustrates jejunal diverticulum perforation in the use of mycophenolate mofetil. Physicians should increase the awareness of this association of perforated jejunal diverticulum in patients using mycophenolate mofetil.

Keywords: Intestinal perforation, immunosuppression, jejunal diverticulosis

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Introduction

Perforated jejunal diverticulum is a very rare disease.¹ Gastrointestinal tract perforations have also been rarely observed in the use of mycophenolate mofetil. We report a case of recurrent perforated jejunal diverticulum in a patient with end-stage renal disease (ESRD) post failed kidney transplant on low-dose mycophenolate mofetil. Physicians should increase the awareness of this association of jejunal diverticulum perforation in patients using mycophenolate mofetil.

Case Presentation

A 44-year-old man presented to the emergency department with acute onset of abdominal pain. He reported that his pain started 2 days ago and had become progressively worse. The pain was diffuse across his mid-to-lower abdomen. The patient had normal bowel movements and denied any fever, chills, nausea, or vomiting. His medical history was significant for end-stage renal disease (ESRD) from his congenital renal hypoplasia. He received kidney transplant 7 years ago. Unfortunately, he developed acute antibody rejection and had been requiring intermittent hemodialysis for the past 2 years. He desired to undergo renal transplant again and had been on immunosuppression with oral prednisone (5 mg/day) and mycophenolate mofetil (250 mg/day). On physical examination, the patient had a blood pressure of 105/60, heart rate of 103, respiratory rate of 20, body temperature 37.1°C. His abdominal examination demonstrated generalized tenderness. There was remarkable lower abdomen rebound tenderness, just below the level of the umbilicus. Bowel sound was absent. Computed tomography (CT) of the abdomen and pelvis with intravenous (IV) contrast was performed [Figures 1 and 2].

Abdominal CT (axial view, [Figure 1] and coronal, [Figure 2] demonstrated ruptured jejunal diverticulum with associated free intraperitoneal air (white arrows) and surrounding mesenteric edema left mid abdomen. Numerous small bowel diverticuli were noted with
marked jejunal diverticulosis. The patient underwent a segmental jejunal resection and anastomosis. His postoperative course was uneventful. The patient was dismissed from the hospital and continued his immunosuppression, including prednisone and mycophenolate mofetil. A month later after his hospitalization, the patient appeared with the same presentation and was found to have recurrent jejunal diverticulum perforation. He again underwent a segmental jejunal resection and anastomosis. Nephrology was consulted. The information on the risks and benefits of mycophenolate mofetil as well as information on alternative options such as azathioprine was provided. Mycophenolate mofetil was discontinued. Three months after hospitalization, the patient continued to do well without any further episode of abdominal pain.

**Discussion**

Jejunal diverticulosis is a rare disease with an incidence of less than 0.5%.[1] Most cases of jejunal diverticulosis are usually asymptomatic. Common acute complications include diverticulitis, intestinal obstruction, bleeding and perforation.

If the perforated jejunal diverticulum causes only localized peritonitis and the patient has stable hemodynamics, non-surgical management with intravenous antibiotics and percutaneous CT-guided aspiration of localized intraperitoneal collections are possible treatment options.[2] However, the current treatment of choice for perforated jejunal diverticulum with generalized peritonitis is urgent laparotomy with segmental intestinal resection and primary anastomosis.

In our case, due to immunosuppression, the patient underwent a segmental jejunal resection and anastomosis. Since gastrointestinal tract perorations have been rarely observed in the use of mycophenolate mofetil,[3] the patient was informed and planned for closed follow-up.

**References**

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