

Perforated Jejunal Diverticulum: A case report on a rare 6 x4 cm perforated jejunal diverticulum disguised as a contained gastric perforation



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INTRODUCTION

Although diverticulosis is a common pathology, jejunal diverticular disease is rare and can have variable presentations including an acute abdomen, which is frequently misdiagnosed pre-operatively. It's reported incidence varies from 0.05% to 6% and most cases are discovered incidentally during radiologic examinations [1]. The treatment of asymptomatic cases require no intervention, but the consensus remains unclear about the management of mild or chronic presentations due to the rarity of clinical presentations. Here is where the problems arise, because although jejunal and jejunoileal localization is nearly three times less frequent than duodenal, it is four times more likely to develop serious complications requiring operative intervention and increased morbidity [2].

Case Report

This is a case of a 40 year old female with a past surgical history of laparoscopic hiatal hernia repair in 2013 that presented with a complaint of vague abdominal pain for several months that would self resolve, but now had 1 day of worsening abdominal pain. CTAP was performed showing a foci of pneumoperitoneum in the left subphrenic space, concerning for bowel perforation with mesenteric stranding. Upper gastrointestinal series was performed showing a small pocket of contrast near the gastric fundus most likely representing an area of localized perforation. Patient was hospitalized for 7 days and discharged home once tolerating a liquid diet. Eleven days later the patient represented with a complaint of 2 days of emesis and increasing abdominal pain. On arrival patient was found to be hypotensive, with labs significant for a white blood cell count of 15, and a creatinine of 2.7 (baseline 0.8). On exam patient was in apparent distress with tachycardia in the 110s and a peritoneal abdomen. CTAP was performed showing a collection of air in the proximal small bowel extending into the mesentery in the left abdomen with adjacent mesenteric inflammation, concerning for contained gastric perforation. Patient was urgently taken to the operating room for diagnostic laparotomy, possible exploratory laparotomy.

REFERENCES

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FIGURE 1: Laparoscopic adhesions and diverticulum

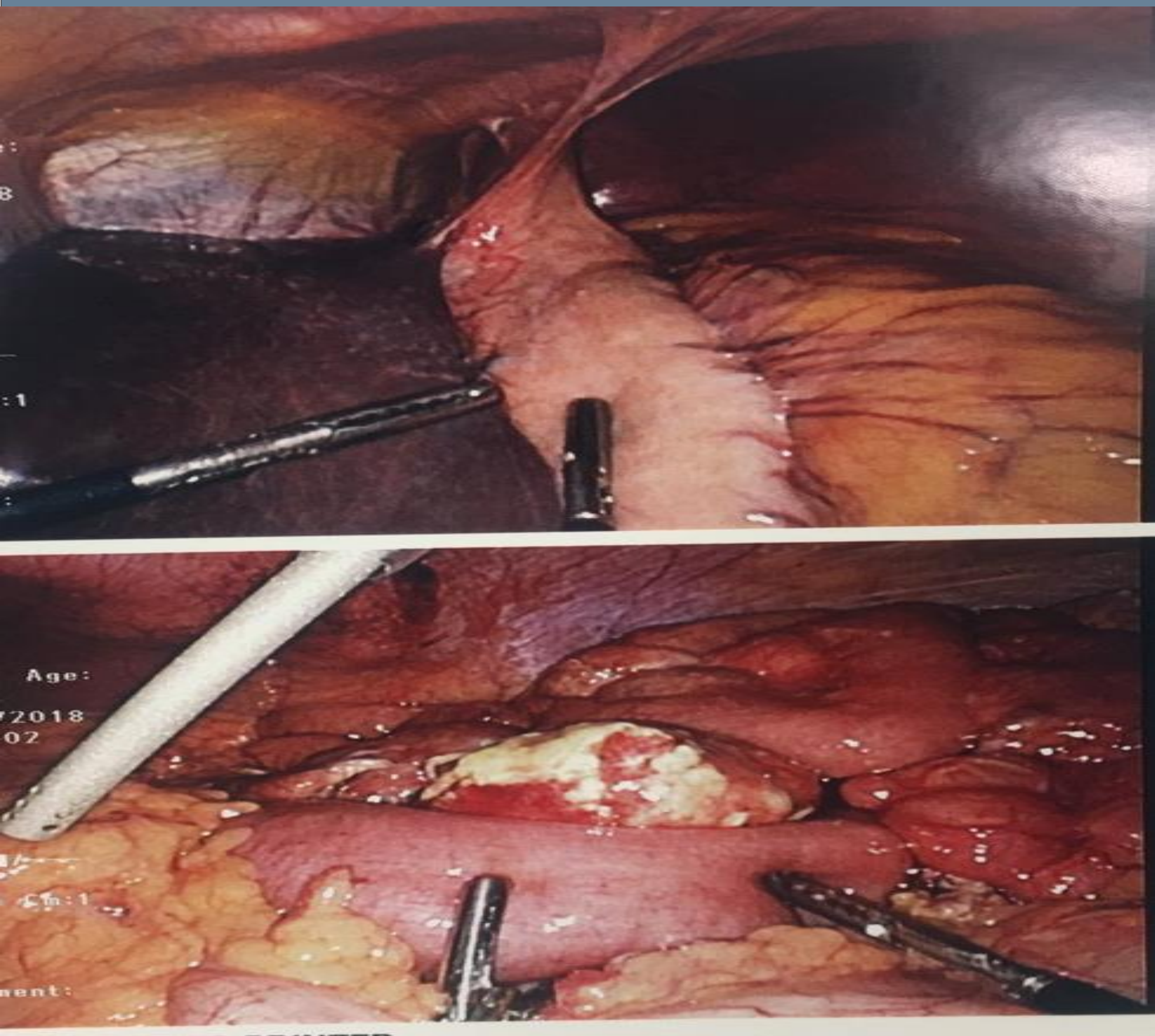


FIGURE 2: 6X4 cm perforated jejunal diverticulum

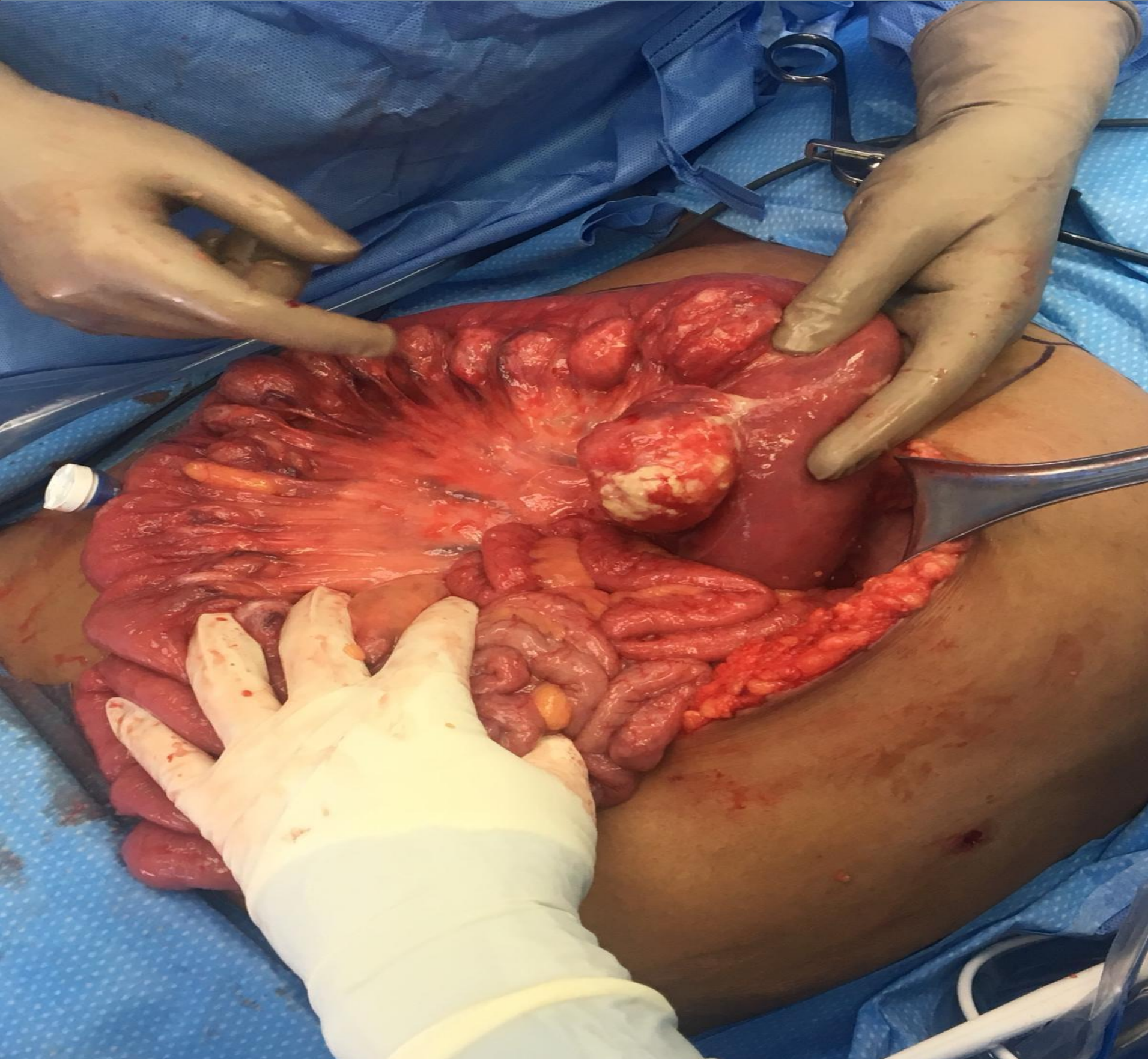


FIGURE 3: Diverticular jejunal resection



Findings/Procedures:

The procedure started with a diagnostic laparoscopy and immediately upon entering the abdomen a large 6x4 cm perforated jejunal diverticulum with purulent peritonitis and adhesive bands was encountered, at this point which the procedure was converted to exploratory laparotomy. The jejunum was found to have fulminant diverticular disease, extending almost the entire length and 95cm of diseased jejunum was resected. Final surgical pathology resulted as small intestine with focal transmural necrosis suggestion of perforation, subserosal abscesses, and diverticulosis.

CONCLUSIONS

Although uncommon, jejunal diverticular disease should be included in the differential diagnosis for any patient with an acute abdomen, especially in those patients presenting with a history of long standing intermittent abdominal pain. The interpretation of abdominal CT findings is they key to the correct diagnosis, and discussions should be held with the interpreting radiologist and surgeon to ensure the most correct differential diagnoses. On CTAP perforated jejunal diverticulum may look like an inflammatory mass containing gas or feces, or as a contained area of perforation [3], such as in this case. To facilitate the correct diagnosis multiplanar imaging has been found useful by allowing different planes to show a direct delineation of the diverticular orifices [4]. The correct imaging studies and multidisciplinary collaboration can help prevent patients from experiencing multiple hospital admissions and treatments, as in this case, and can expedite the correct diagnosis and management of patients.