Two Cases of Perforated Jejunal Diverticulum with Severe COVID-19

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INTRODUCTION

- Jejunoileal diverticulitis is very rare with a high mortality rate of 21-40%.
- The rates of small bowel diverticulitis with perforation associated with COVID are unknown.
- We present two patient cases of complicated jejunal diverticulitis with perforation in severe COVID infection.

CASE 1

- The first patient is a 69-year-old man who presented to our Emergency Department with shortness of breath, cough, and diarrhea. He was diagnosed with severe COVID-19 despite being vaccinated. He was started on methylprednisolone and remdesivir. Thirteen days into admission, he developed pneumomediastinum. Computed Tomography Abdomen/Pelvis (CT A/P) for further evaluation showed pneumoperitoneum and perforated jejunal diverticulitis. Given the severity of COVID pneumonia requiring high-flow oxygen, continued use of corticosteroids (methylprednisolone 40mg BID), and risk of surgical complications with COVID, conservative management with antibiotics and bowel rest was pursued. The patient developed an abscess in the mesentery and pelvis for which a drain was placed percutaneously by Interventional Radiology. He unfortunately developed progression of the perforation and passed away from septic shock and multiorgan failure.

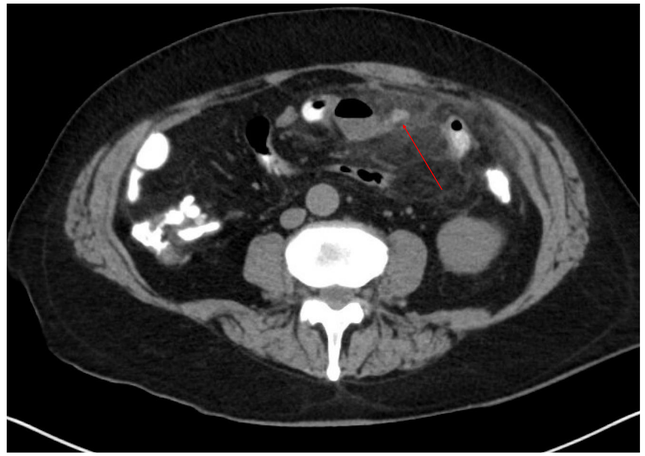

Figure 1 CT Abdomen/Pelvis transverse view showing jejunal perforation with surrounding inflammation (arrow).

DISCUSSION

- It is unclear if the complication of perforated diverticulum in these cases is due to the underlying inflammatory response due to COVID, steroid-induced disruption of intestinal mucosal barrier or incidental diverticulitis with evolution to complicated perforation.
- However, each case reminds us how important it is to take abdominal complaints in COVID seriously as jejunoileal diverticulitis has a high mortality rate.

CASE 2

- The second patient is a 57-year-old male with hypertension, history of deep vein thrombosis who presented with worsening shortness of breath, cough and fever. He was diagnosed with severe COVID (unvaccinated) and started on baracitinib, remdesivir, methylprednisolone. Ten days into admission he developed severe abdominal pain, nausea, vomiting, and worsening leukocytosis. CT A/P showed new abscess involving the left upper quadrant with a contained jejunal perforation. The patient was initially managed with bowel rest, antibiotics and pain control. However, he developed worsening leukocytosis and pain with peritonitis on exam. He was taken emergently to the operating room and had proximal perforated jejunum resection and lysis of adhesions. He ultimately had small bowel re-anastomosis. He continued to improve clinically and was discharged home.

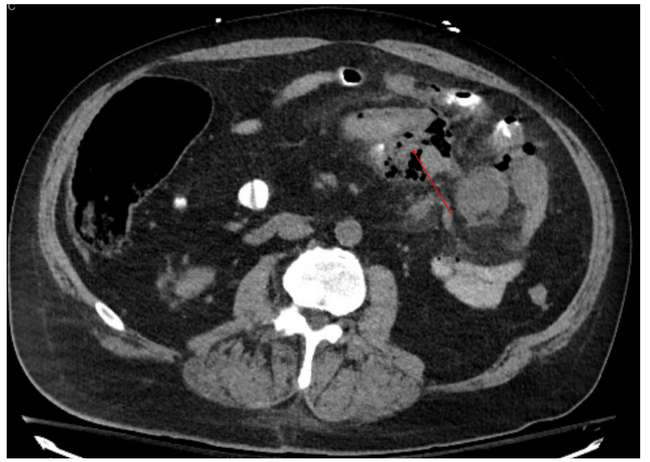

Figure 2 CT Abdomen/Pelvis transverse view showing thickened loops of jejunum with interloop abscess (arrow).