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UNUSUAL CASES OF ACUTE PANCREATITIS IN PATIENTS WITH COVID-19

Editor,

COVID-19 commonly presents as cough, shortness of breath, and fever, but extrapulmonary manifestations are being reported in recent times¹. This is consistent with the fact that the ACE2 receptors through which the coronavirus SARS-CoV-2 enters cells are present in many organs beside the lung². Gastrointestinal involvement in COVID-19 has become more common with many patients presenting with pain abdomen, diarrhoea, nausea and vomiting³. Here we

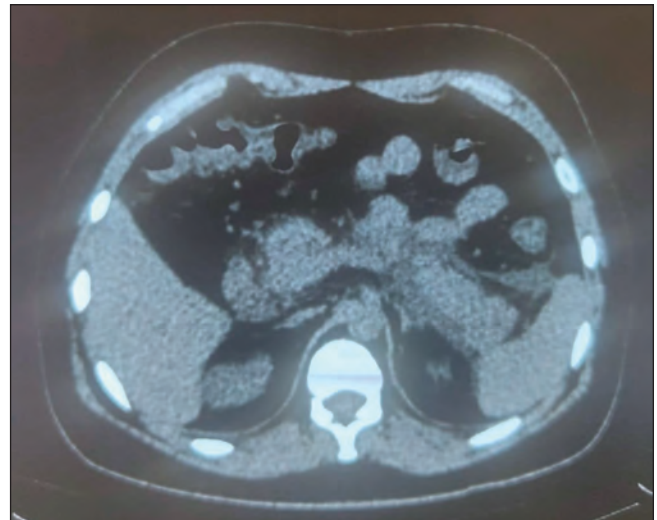


Figure 1: Axial plain CT images showing enlarged pancreas with peripancreatic fat stranding

outline 2 cases of COVID-19 associated acute pancreatitis.

A 33 year-old male diagnosed with COVID-19 presented with loose non foul-smelling and non blood-tinged stools, vomiting and pain abdomen. The patient had stable vitals and denied consumption of alcohol over the last 4 months. The epigastric and left hypochondriac region were tender on palpation. Lab investigations revealed grossly elevated serum lipase (5257 IU/L) and amylase (3269 IU/L). CT scan of the abdomen and pelvis revealed perinephric fat stranding in the head, body and part of the tail of the pancreas- suggestive of acute oedematous pancreatitis. Minimal peripancreatic fluid was also seen extending to the anterior perinephric fascia (Figure 1). A diagnosis of acute pancreatitis secondary to COVID-19 infection was made. The patient was given IV fluids, broad spectrum IV antibiotics, analgesics and other supportive treatment. A CT guided fluid aspiration was done for the peripancreatic fluid which was sterile. Patient recovered completely following treatment and was discharged.

In another instance, 76-year-old woman tested positive for COVID-19 after developing low grade intermittent fever over 10 days. Over the course of her home isolation, she developed generalised weakness and myalgia, productive cough MMRC grade 3 breathlessness. She did not consume alcohol.

Respiratory rate was 32 cpm and on auscultation bilateral crepitations were heard in the infrascapular areas. A high resolution CT scan of the chest showed features suggestive of COVID-19 pneumonia with a CT score of 17 out of 25.

Two days after admission, she started developing pain in the epigastric and left hypochondriac area which was tender on palpation and was associated with nausea and vomiting. Repeat investigations revealed grossly elevated amylase (1955 IU/L) and lipase (4895 IU/L). Abdominal ultrasound detected the presence of minimal ascites, prominent pancreatic duct and fluid collection near the tail of the



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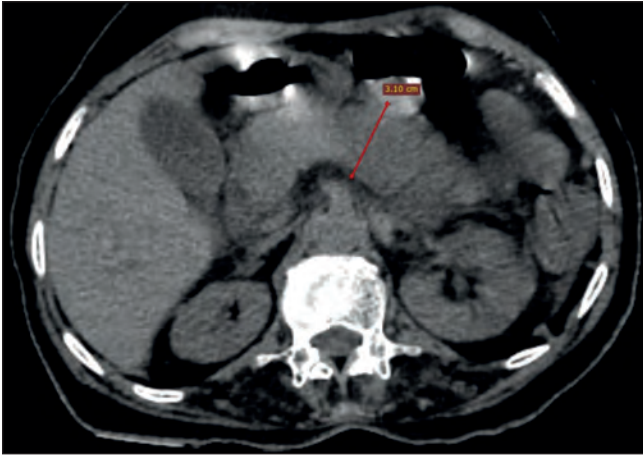


Figure 2: Plain CT axial view showing enlarged pancreas with fluid in the tail region with peripancreatic fat stranding.

pancreas. NECT of abdomen revealed a bulky pancreas, with inflammatory fat stranding present at the tail end of the pancreas and some enlarged peripancreatic lymph nodes present near the pancreatic tail (Figure 2). The patient was given IV fluids, broad spectrum IV antibiotics, analgesics and other supportive treatment. Despite resolution of the pancreatitis with treatment, the patient developed worsening lung complications and succumbed to the disease.

COVID-19 infection has been linked to pancreatitis in the absence of traditional risk factors like alcohol consumption or gallstones⁴, as in the case of our patients, both of whom had neither a significant history of alcohol consumption or any evidence of gallstones on imaging. Other causes of pancreatitis include trauma and steroid use, and a history of neither was present in our patients. Both patients had no history of pain or swelling in the parotid region- which would rule out mumps as a potential cause of pancreatitis. Furthermore, neither patient had a history of scorpion stings, which is a rare cause of pancreatitis. In both patients serum calcium and triglycerides were within normal limits. Considering all the above, a diagnosis of COVID-19 related pancreatitis was made. As more cases of acute pancreatitis in patients with COVID-19 are being reported, it becomes pertinent to screen patients with COVID-19 presenting with gastrointestinal complaints for pancreatitis with serum amylase, lipase and abdominal CT scan.

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