

Enteritis and Severe Abdominal Pain as the First Presentation of Covid-19

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Abstract

Presentation

A male patient with no significant past medical history presented to emergency department with progressive in severity abdominal pain, associated with mild nausea and diarrhea. No other significant symptoms were reported.

Diagnosis

On investigation with CT, duodenojejunitis was diagnosed as the cause of abdominal pain. Lung basal changes were also visualized and subsequently proven to be secondary to Covid-19 infection.

Treatment

After few days of hospitalization and supportive treatment, the patient improved clinically and was discharged.

Conclusion

Covid-19 infection typically presents with respiratory symptoms associated with fever and myalgia. Anorexia, diarrhea and nausea have been reported. Severe abdominal pain is rare, particularly as the initial presenting complaint. It is important to be aware of the varied clinical presentations that may occur in Covid-19, including isolated gastrointestinal symptoms. This will allow to increase the timely detectability of infected patients and more effective contact control measures.

Introduction

Covid-19 infection is pandemic with over 2 millions of people infected worldwide, and thousands of cases in Ireland, with figures increasing steadily¹.

Coronavirus most commonly affects respiratory system and typically causes a cough and dyspnea with or without associated fever and myalgia. Gastrointestinal system involvement is relatively less common with abdominal pain rare and often non-specific in nature. In some cases of Covid-19 infection, digestive symptoms may be the first or only sign of infection.^{2,4} This is highlighted by the fact that up to 10.1% of cases of Coronavirus infections have been reported to initially present with diarrhea/nausea few days prior to development of typical symptoms.³

In our case, the patient presented with an acute abdomen. CT demonstrated duodenojejunitis as the cause. In addition, lung basal changes were detected typical for Coronavirus infection. The patient subsequently tested positive for Covid-19.

Case Report

A 50 year old patient presented to the emergency department with severe abdominal pain, progressed over few days. There was an associated 2-day history of mild nausea and diarrhea, however no vomiting.

The patient was not considered as Covid-19 positive, but when questioned, reported a mild dry cough for several weeks. No recent deterioration, shortness of breath, fatigue or fever.

Biochemical analysis showed minor leukocytosis and mildly elevated CRP.

Surgical examination revealed marked tenderness of the abdomen. A visceral perforation was suspected with a wide differential including inflammatory conditions such as pancreatitis and diverticulitis.

The initial chest radiograph showed no evidence of subdiaphragmatic air.

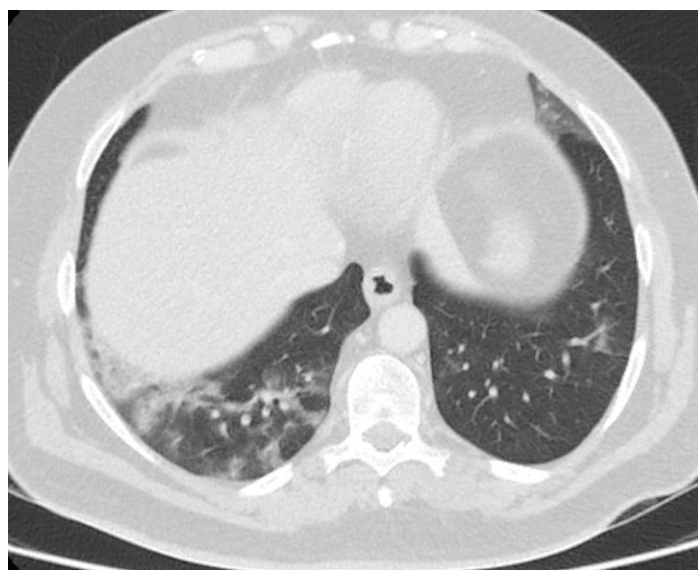
A CT scan of the abdomen and pelvis was performed the next day. This revealed thickening of the distal duodenum and proximal jejunum with surrounding fat stranding and reactive lymph nodes [Image 1].

Image 1: Coronal image of the abdomen post IV and PO contrast administration demonstrating wall thickening at the level of duodenojejunal flexure and proximal jejunum (white arrow).



Partially imaged lung bases demonstrated bilateral ground glass infiltrates [Image 2], suggestive of Covid-19 infection. Patient was swabbed and a viral PCR for Coronavirus was positive.

Image 2: Axial CT image of the lung bases showing bilateral groundglass infiltrates, more marked on the right.



After few days of hospitalization and supportive treatment, the patient improved clinically and was discharged.

Discussion

Covid-19 is an infection that has spread worldwide rapidly. Gastrointestinal involvement has been reported in many recent studies and GI symptoms are more common than initially thought. Abdominal pain is uncommon but is also recognized as a symptom. It is often non-specific but in our case it was shown to represent duodenojejunitis. The lung basal changes present in our patient were subsequently proven to be secondary to Covid-19 infection.

In the literature, digestive involvement by Covid-19 has been observed to be predominantly associated with respiratory symptoms. However in some cases, such as the one shown here, gastrointestinal presentation is the only, or the main, cause of hospital presentation.^{2 4}

Recent studies have shown that the gastrointestinal tract may be a site of viral replication with proved faeces presence of viral RNA in up to 53 % Covid-19 positive patients. This in turn raises the concern of potential orofaecal transmission.^{4 5 6} Additionally, Covid-19 cases that include GI symptoms are usually observed to be more severe, involving a longer hospital stay, and having a higher mortality⁴

In the absence of a vaccine or an effective antiviral therapy, early recognition of Covid-19 is important as this allows for prompt detectability, treatment and more effective contact control measures. For these reasons, it is important that GI symptoms not be discounted in the screening process of Covid-19 patients.

Additionally, increased suspicion of orofaecal transmission should reinforce the strict hand hygiene measures that are in place among health professionals.

In conclusion, we have presented an atypical case of a Covid-19 positive patient who initially presented with an acute abdominal pain and was subsequently diagnosed with duodenojejunitis on CT. It is important that clinicians be aware that Covid-19 may present itself with abdominal symptoms as the initial and/or main complaint.

Declaration of Conflicts of Interest:

None declared.

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