Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

CHEST Annual Meeting | October 18-21 2020

Critical Care

SESSION TITLE: Fellows Critical Care Posters
SESSION TYPE: Fellow Case Report Posters
PRESENTED ON: October 18-21, 2020

A CASE OF BOWEL PERFORATION IN A CRITICALLY ILL PATIENT ADMITTED WITH SARS-COV2

GAURAV PARHAR JAD SARGI KIRAN ZAMAN OBED ADARKWAH AND LOUIS GEROLEMOU

INTRODUCTION: The first confirmed case of COVID 19 was reported in Washington state on January 31, 2020. Soon after the California and Washington state outbreaks, New York has become one of the major epicenters of SARS-CoV-2 infections in the world with more than 20.000 fatalities. Gastrointestinal manifestations of many types of corona viruses including 2003 SARS and COVID 19 were reported in multiple studies. We would like to report a case of perforated colon in a critically Ill patient who presented to our hospital with confirmed COVID 19 symptoms.

CASE PRESENTATION: 36 year old female with PMH of DM and HLD presented to the hospital with complaints of worsening malaise, myalgia and fever. She was admitted to ICU secondary to acute hypoxemic respiratory failure due to COVID 19 pneumonia. During her ICU admission she was noted to have episodes of high fever associated with worsening leukocytosis. Her CXR showed air under diaphragm. Subsequent abdominal CT scan showed large pneumoperitoneum, suggestive of a perforated viscus. She underwent emergent diagnostic laparotomy and was found to have cecal and ascending colon perforation. Right hemicolectomy and loop ileostomy were performed. The tissue Pathology report showed active colitis, micro abscesses and ulceration suggestive of bowel perforation. Patient still remains acutely Ill in our ICU being supportively managed perioperatively.

DISCUSSION: The incidence of GI manifestations in COVID 19 patients is unknown. Many studies reported multiple GI symptoms associated with original 2003 SARS-COV and recently COVID 19 pneumonia including nausea , vomiting and mainly diarrhea. Rarely, the symptoms are severe enough to cause gastrointestinal catastrophic complications including ischemic colitis and bowel perforation. These complications are likely related to micro thrombi formation in the setting of COVID 19. There is currently no available assay to test tissue for the presence of SARS-COV2 RNA, However in our case, the diagnosis was suspected given our patient's diagnosis and clinical context. Our case underlines the importance of maintaining a high index of suspicion for colitis and colonic perforation especially in the setting of COVID 19 infection.

CONCLUSIONS: Physicians should be aware of the possible occurrence of rare serious GI complications in a critically ill patients admitted with COVID 19 pneumonia

Reference #1: SARS-CoV-2 Gastrointestinal Infection Causing Hemorrhagic Colitis: Implications for Detection and Transmission of COVID-19 Disease Alexandre Carvalho, MD, MPH1 ; Rana Alqusairi, MD1 ; Anna Adams, DO1 ; Michelle Paul, BS2 ; Neelay Kothari, MD1,3 ; Stevany Peters, MD1,4; and Anthony T. DeBenedet, MD, MSc1,4

Reference #2: Magro C, Mulvey JJ, Berlin D, et al. Complement associated microvascular injury and thrombosis in the pathogenesis of severe COVID-19 infection: a report of five cases [published online ahead of print, 2020 Apr 15]. Transl Res. 2020;S1931-5244(20)30070-0. doi:10.1016/j.trsl.2020.04.007

Reference #3: Leung WK, To KF, Chan PK, et al. Enteric involvement of severe acute respiratory syndrome-associated coronavirus infection. Gastroenterology. 2003; 125:1011-7

DISCLOSURES: No relevant relationships by Obed Adarkwah, source=Web Response

No relevant relationships by Louis Gerolemou, source=Web Response

No relevant relationships by Gaurav Parhar, source=Web Response

No relevant relationships by jad sargi, source=Web Response

No relevant relationships by Kiran Zaman, source=Web Response

DOI: http://dx.doi.org/10.1016/j.chest.2020.08.674

CRITICAL CARE