

CASE REPORT



A case report of COVID-19 colitis and a sports medicine driven community outreach program that contributed to a successful outcome

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ABSTRACT

This case illustrates a lesser seen presentation of SARS-CoV-2 (henceforth to be termed COVID-19): acute ascending colitis in the community setting. In a broader context, however, this case demonstrates the importance of community, spirituality and a social support network while fighting a life-threatening illness, especially one that demands social and physical isolation while convalescing. Many are attracted to practice in the field of sports medicine due to a sense of community and teamwork that parallels the goals of the individual athlete. This case illustrates the unconventional role sports medicine physicians, orthopedic surgeons and team sports chiropractors have undertaken in the battle versus Covid-19, specifically consulting on the patient while creating an outreach program in the hopes of contributing to the patient's sense of wellness. In this unique case, our patient is a current soccer coach and former professional soccer player known well in the American and El Salvadorian soccer communities. The community he has devoted his life's work to played a pivotal role in his battle against COVID-19. While this disease has undoubtedly resulted in global upheaval, community support, particularly that of the Washington D.C. Soccer community and the D.C. United Major League outreach program, played a large role in the psychosocial wellness of the patient and ultimately his recovery.

ARTICLE HISTORY

Received 14 October 2020
Accepted 21 October 2020

KEYWORDS

COVID-19; colitis;
gastroenterology;
community support; retired
professional athlete

1. Introduction

“It is far more important to know what person the disease has than what disease the person has.”

- Hippocrates

“To cure sometimes, to relieve often, and to comfort always.”

-15th century folk saying

The betacoronavirus, SARS-CoV-2, first recorded in Wuhan, China and responsible for the COVID-19 pandemic, poses a global health threat and has resulted in more than 1.1 million deaths worldwide as of October 2020 [1]. This disease has affected millions more with the imposed restraint for family visitation, ability to experience closure during the end of life, and significant comorbidities of depression symptoms such as loneliness and loss of hope for those infected with COVID-19. The virus presents with a variety of syndromes affecting pulmonary, vascular, and digestive pathways. Major symptoms are respiratory manifestations including cough, shortness of breath, and fever, as well as digestive symptoms, such as nausea, vomiting, diarrhea, and abdominal pain [2]. In addition, hopelessness, loneliness, and anhedonia are experienced by many with this disease, contributing to the mounting evidence that comorbidities of depression and anxiety

are secondarily common throughout the syndrome. This case underscores an important pathway for COVID-19: digestive manifestations and colitis [2]. In a broader sense, this case illustrates how the community of sports medicine physicians were able to orchestrate an outreach program utilizing resources inherent to their specialty and in doing so may have improved the outcome for one patient.

2. Case report

A 52-year-old El Salvadorian-American male soccer coach, teacher and former professional soccer player with a past medical history of gout presents with 8 days of severe abdominal pain localizing to the right upper and lower quadrant of the abdomen and radiating to the thoracic region of the back, worsened by palpation and positional change as well as associated cramping, loose stools, myalgia, fever and cough. The patient has had two prior family members diagnosed with COVID-19, both experiencing a mild clinical course.

The patient's temperature on admission was 101.1, his blood pressure was 126/71, and his oxygen saturation was 94%. The patient was a muscular male who was ill-appearing. He was alert and oriented without nuchal rigidity. Lung auscultation revealed scattered

rhonchi in basilar lung fields. Abdominal tenderness was profound on the Right upper and lower quadrants. No rashes, petechiae, or purpura were noted. The Neurological exam was non-focal. The patient noted significant distress in being isolated from his family on admission. As a sports medicine physician and internist, I was asked by the family to consult on the case, given the patient was very concerned that he was entering isolation without familiar faces being able to visit him.

Significant laboratory values were: WBC of 14.2 with bands of 9900 microL. CRP of 78.1. LDH was 253.2. Transaminitis was observed with an AST/ALT of 346 and 473, respectively. Stool guaiac was negative. Patient tested positive to a SARS-2 COVID 19 rapid nasal swab on admission and later obtained a positive COVID-19 PCR test.

Chest radiograph demonstrated patchy bilateral lower airspace opacities, predominating in the mid to lower right lung and at the left lung base. CT of abdomen and pelvis with IV contrast showed diffuse hepatic steatosis. Splenomegaly measuring 11.5 × 5.5 × 15.4 cm. Moderate colonic wall edema noted throughout the ascending colon.

Due to severe pain, the patient was started on IV morphine which required consultation pain management during the hospital stay in order to control pain secondary to the ascending colitis. The patient was started on hydroxychloroquine and completed eight doses while in the hospital. He was placed on antibiotics for pneumonia beginning with azithromycin and later changing to doxycycline. The patient also received O₂ therapy.

A rapid response was called on hospital day 2 due to oxygen saturation lowering to 91–92% and the patient's abdominal pain continued to be scored on a Visual Analogue Scale as greater than 7. The patient did note depression and anxiety along his clinical course having been separated from his family due to COVID-19 restrictions. These features waxed with bouts of pain. He noted he felt he would pass away without his family nearby which was understandably a significant stressor. During this time he was listless, expressed frustration and was physically emotional. His pain scores were elevated as his oxygen decreased. Pain management was consulted. The patient stated he had never been away from his family isolated without contact for many days. He described a sense of anhedonia. Psychiatry was consulted and social workers began visiting with our patient. It was clear, given the constraints of COVID-19 isolation as well as the complexities of the disease itself, that our patient was decompensating.

Pulmonary consults were continuously made and it was noted that the patient was becoming very close to intubation, despite prone positioning and high flow O₂ at 5 L for greater than 6 h.

As a medical consultant, I reached out to a non-traditional service for help with a systemic infectious disease: orthopedics. The reason for this was to enlist the help of a small number of professional soccer players to improve our patients sense of isolation and anhedonia given his love of the sport of soccer. The orthopedic and sports medicine chiropractic service was exceptionally helpful, running a very successful sports medicine program for the Washington D.C. Major League Soccer program, D.C. United, for years. Over the course of 6 h, a plan was developed to organize an outreach program through D.C. United's front office. Given the severity of the patients symptoms, the plan was expedited and unanimously approved. Given patient's acuity, the plan was to send the patient a few short clips of encouragement via pre-recorded video messages. Hoping for 1–2 calls of goodwill, the patient received over 30 videos and messages from team members of the past and present as well as administrators and coaches, many in the patient's native language. Prayer groups were started in his name throughout the El Salvadoran community, mostly spawned by the help of his current men's soccer league and the D.C. United community.

Throughout hospital day 4, the patient continued to receive more virtual visits from several members of Major League Soccer's D.C. United. Past and present players as well as coaching and managerial staff expressed their support and encouragement. There was a clear improvement in the patients feeling of hope and his overall attitude towards his illness. The patient's pain scores improved as well. The patient's demeanor improved objectively, his VAS pain scores decreased, and his Oxygen saturation was noted later that day to be averaging 96–97%.

The patient was weaned off of O₂ on hospital day 5. Fevers and diarrhea acquiesced by hospital day 5 as well, and the patient was discharged on hospital day 6. His complaint of mild abdominal pain continued for 10 days following the discharge and he was managed on an outpatient basis with tramadol. The patient was continued on 7 days of home isolation following the hospital stay.

3. Discussion

This case illustrates a pathophysiologic mechanism of COVID-19: acute ascending colitis in the community setting. On a broader scale, however, this case places emphasis on the comorbid inherent fears, anhedonia, and symptoms of depression that can be experienced during isolation while enduring a COVID-19 infection. Empirical research has illustrated a link between the emotional aspects of optimism, hope, and feelings of control over one's own life and the psycho-social symptoms that accompany coping with a life-threatening illness [3].

These feelings of hope and control are individual to the patient and in this case were encouraged by a community outreach program spawned over the course of a 48-h period by a Major League Soccer team. Furthermore, it highlights the need for vigilance and public education regarding symptomatology of gastroenterologic symptoms of COVID-19: diarrhea with or without abdominal pain.

Our patient is a well-known former pro soccer player from El-Salvador who has worked tirelessly in the community promoting the sport. He was wisely quick to quarantine as two family members had developed symptoms weeks before his illness. This undoubtedly helped diminish the spread to his Soccer team and the community at large. While undoubtedly this disease has caused world-wide havoc, community support, particularly that of the Washington D.C. soccer community and the D.C. United Major League outreach program, played a large role in the psychosocial wellness of the patient and ultimately his recovery.

The role of concomitant digestive symptoms in the diagnosis and treatment of COVID-19 has become increasingly prevalent, with presumed gastrointestinal manifestations reported in anywhere from 3% to 50% of patients with concomitant SARS-CoV-2 pulmonary infection. Furthermore, fecal RNA analysis suggests that 3%-10% of patients who are eventually found to have SARS-CoV-2 pulmonary infection initially presented with isolated digestive symptoms [2]. Similarly, Wang et al. found that 10.1% of patients initially presented with diarrhea and nausea 1 to 2 days prior to the development of fever and dyspnea, illustrating the

critical role these symptoms may play in future identification of COVID-19 infections [4].

While COVID-19 has proven to be a world-wide dilemma, first-line responders, and in this case sports medicine practitioners, demonstrated a teamwork based approach, common in drawing many to engage in athletics and in sports medicine in general. Through developing an outreach program to a patient who was in need of psychosocial support, a multi-dimensional, team-oriented approach contributed to a positive outcome.

Disclosure statement

No potential conflict of interest was reported by the authors.

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