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**Severe COVID 19 Case with Atypical Presentation**

Collin Richards  
Raef Fadel  
Odaliz Abreu-Lanfranco  
Indira Brar  
Geehan Suleyman

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COVID-19 was brought to the attention of the WHO on December 31st, 2019 and classified a global pandemic on March 11th.1 As of April 27th, there were 38,210 cases and 3,407 deaths in Michigan, with 8,679 cases and 950 deaths in Detroit.2 Efforts to characterize risk factors for severe disease may improve clinical outcomes and inform resource allocation. Better understanding of the epidemiological and clinical characteristics of COVID-19 are essential to slowing transmission and treating patients. Below we detail the clinical features of a COVID-19 positive patient seen in early March, 2020.

Case Report

An 80-year-old female presented to the ED with fevers. She endorsed worsening fevers, watery diarrhea, abdominal pain, and myalgias for one week. She was febrile and had lower abdominal tenderness. Her labs showed lymphopenia, thrombocytopenia, and mild hypoaesthesia. Influenza swab, viral panel, and legionella urine antigen were negative, prompting COVID-19 testing. Chest x-ray showed diffuse reticuloealphatic opacities (figure 1A).

She was intubated and transferred to the MICU on day 7. Inflammatory markers including LDH, CRP, procalcitonin, lactate, anion gap, aPTT, INR, and D-dimer were elevated. ABG revealed low PaO2 and low pH. Her IL-6 and fibrinogen levels were normal. She continued to decompensate with concern for septic shock, and had worsening bradycardia and hypotension, unresponsive to three vasopressors. On day 7, she expired.

Figure 2: Portable AP view chest x-ray on the morning of hospital day 7 showing worsening reticular and interstitial opacities.

Figure 1: Chest x-ray on admission showing bilateral reticuloealphatic opacities A: lateral view; B: AP view

Antibiotics were started and she was admitted on hospital day 2. She developed dyspnea, rales, and increasing oxygen demand through her hospitalization. COVID-19 testing resulted positive by day 4. Infecone disease recommended ribavirin and lopinavir-ritonavir. Her son was informed, and all contacts were advised to isolate for two weeks.

On days 5 and 6 she improved clinically, though was not discharged due to concern for decompensation. Despite her improving clinical course she decompensated quickly. A high index of suspicion for decompensation could positively impact the hospital course of such patients, despite the lack of pharmacologic interventions to reverse or cure the disease.

Table 1: Laboratory trends through course of hospital admission. Marked elevation of markers associated with morbidity and mortality on hospital days six and seven correlate to clinical deterioration.

Table 2: Vital signs and symptom progression through the course of illness.

Discussion

Our report of a COVID-19 patient that died in their mortality provides important lessons for providers. The transmission mode was community spread, reflecting high transmissibility among family groups.3-4 Fever is reliably present over the illness course, though seen in under half on presentation.5-6 Fatigue is common and was observed in our patient. Cough is common, though was absent here. Diarrhea is an uncommon presenting symptom, reducing initial clinical suspicion and potentially delaying diagnosis.7-8

Other characteristics seen in our patient reflect a growing body of evidence supporting high rate of morbidity and mortality in patients with COVID-19. Such populations, including critically ill elderly population, require ICU level care, with marked lymphopenia on admission labs, and elevated inflammatory markers across their hospitalization.9-10 Also, investigative treatments including Lopinavir-ritonavir, ribavirin, hydroxychloroquine, and azithromycin have yet to demonstrate clinical efficacy in large randomized controlled trials,11-13.

Our patient reflected the highest risk category of patients admitted for COVID-19, and despite her improving clinical course she decompensated quickly. A high index of suspicion for decompensation could positively impact the hospital course of such patients, despite the lack of pharmacologic interventions to reverse or cure the disease.

Conclusion

Our patient reflected the highest risk category of patients admitted for COVID-19, and despite her improving clinical course she decompensated quickly. A high index of suspicion for decompensation could positively impact the hospital course of such patients, despite the lack of pharmacologic interventions to reverse or cure the disease.

Bibliography

