Successful Treatment of SARS-CoV-2 Infected Pregnant Woman Requiring 38 days Extracorporeal Membrane Oxygenation for Associated with Rectal Ulcer Bleeding : A Case Report

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INTRODUCTION

Symptomatic pregnant women with SARS-CoV-2 infection reportedly have a higher risk of death than their non-pregnant counterparts. With the difficulty in prone positioning in gravid patients with acute respiratory distress syndrome, extracorporeal membrane oxygenation (ECMO) is a crucial treatment option. Even though clinicians are encouraged to use ECMO as a bridge therapy in pregnant women with COVID-19, physicians must be aware of the potential complications. Particularly, coagulopathy-related complications are crucial as bleeding and thrombotic events are the leading causes of death in patients on ECMO. Yet, as only 0.8% of pregnant women with COVID-19 infection receive ECMO, the corresponding data are limited. This case report highlights the importance of the systemic examination of pregnant patients with COVID-19 on placed on ECMO postpartum suspected of having hemorrhage.

CASE REPORT

A 38-year-old gravida 2 para 1 married Korean woman with history of cesarean delivery, was admitted to our institution after being diagnosed with COVID-19 infection at 34 gestational weeks (GW). As her clinical condition worsened, she underwent emergency cesarean section at 35+6 GW. The patient remained intubated postoperatively and under sedation. On post-operative day (POD) 2, ECMO was initiated. On ECMO day 6, hypotension with decreased hemoglobin was noted. Daily transfusions of 3 to 5 packs of red blood cells were needed. Systemic evaluation of hemorrhagic focus were done: obstetric evaluation demonstrated physiologic hematometra with minimal oozing from the operative site. Gastrointestinal evaluation with nasogastric tube irrigation and a digital rectal exam was performed; both yielded no significant results. 23 days on ECMO, the color of stool suddenly changed from dark green to melena; gross hematochezia subsequently occurred. The emergency vigorous diagnostic approach with esophagogastroduodenoscopy and sigmoidoscopy was performed. Sigmoidoscopy revealed a solitary rectal ulcer with active bleeding. After injection with epinephrine, bleeding ceased and then her condition stabilized; after 38 days on ECMO and receiving a massive transfusion of 95 packs of red blood cells and 50 platelet concentrates, she was finally decannulated. She was transferred to the general ward and received pulmonary rehabilitation. On POD 101, the patient was discharged in good health.

CONCLUSION

In SARS COV-2 infected gravid patients with severe ARDS, ECMO should be considered a life-saving could be treatment option. Though potential coagulopathy complication must be considered, ECMO can be used in patients with severe COVID-19, including pregnant patients