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Potential challenges in managing obstetrical patients with coronavirus disease 2019

TO THE EDITORS: We read with great interest the article by Yan et al.¹ The authors must be congratulated for their robust analysis of 116 obstetrical patients with coronavirus disease 2019 (COVID-19), in which no maternal deaths and a low rate of spontaneous preterm birth were reported.

Although they are reassuring, we must not take for granted the largely optimal outcomes reported. Being the largest series of pregnant patients with COVID-19 to date, the authors present the most comprehensive analysis we have witnessed so far on this distinct group of patients. However, their findings must be interpreted with the caveats they have highlighted. Only slightly over half of the included patients had laboratory-diagnosed COVID-19, among which there was a substantially higher rate of preterm delivery before 37 weeks' gestation (32.0% vs 10.2% in clinically diagnosed patients). Furthermore, although no association was identified between COVID-19 and risk of spontaneous preterm birth, the authors found an increased risk of any preterm birth before 37 weeks' gestation. This was despite the fact that among the 18 cases that had presented before 34 weeks' gestation, 14 were still ongoing at the point of study completion.

It is recognized that physiological maternal adaptations to pregnancy predispose pregnant patients to a more severe case of pneumonia and hence to higher maternal-fetal morbidity and mortality, especially owing to their inadvertent immunosuppressed state. Increased complication rates have been reported in pregnant patients with swine flu (H1N1) and severe acute respiratory syndrome coronavirus (SARS-CoV) infection.² At present, little is known regarding the interplay between COVID-19 and pregnancy, but there is a possibility of COVID-19 following a similar clinical course as SARS-CoV and even H1N1.

In general, peripartum women are susceptible to disease progression to acute respiratory disease syndrome. Mechanical ventilation in pregnant patients can be technically challenging because of the difficulty with prone positioning. Extracorporeal membrane oxygenation (ECMO) has been shown to have favorable maternal and fetal survival rates in peripartum patients and should be considered early as a salvage therapy.³ Another potentially challenging complication is acute kidney injury (AKI). Outcomes of continuous renal replacement therapy for AKI in pregnancy are poor. Furthermore, renal complications for pregnant patients on

ECMO have been shown to be a risk factor for poor survival outcome.⁴

Nonetheless, on a more optimistic note, Yan et al¹ have managed an impressive feat in their analysis of the 116 obstetrical patients with COVID-19. The current study has laid the groundwork for future research to build upon and address the questions that remain on this topic. ■

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The authors report no conflict of interest.

This communication has been published in the middle of the coronavirus disease 2019 pandemic and is available via expedited publication to assist patients and healthcare providers.

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