Furthermore, none of the 3 symptomatic patients required medical treatment beyond standard obstetrical therapies during the delivery hospitalization. Our finding that most COVID-19–positive patients were asymptomatic is similar to the findings of Khalil et al. In addition, our finding that COVID-19–positive patients generally experience uncomplicated delivery and postpartum courses is similar to the findings reported for a cohort from New York City. As experience accumulates, perinatal risks of infection from asymptomatic patients will become clearer.

Our experience indicates that a policy of universal testing for SARS-CoV-2 before delivery is feasible, well accepted by patients, and can be performed in a clinically relevant time frame to assist in appropriate use of personal protective equipment and assignment of hospital resources. Of the 10 cases, the finding of positive test results in 7 asymptomatic patients (70%) suggests the need for such a protocol, even in areas experiencing a low prevalence of disease.

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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. 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 immunsuppressed state. Increased complication rates have been reported in pregnant patients with swine flu (H1N1) and severe acute respiratory syndrome coronavirus (SARS-CoV) infection. 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. 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.

Nonetheless, on a more optimistic note, Yan et al 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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Letters to the Editors

We thank Drs Yin, Lee, and Zhang for their comments on our article. Wong and colleagues reported that around 50% of pregnant women who developed severe acute respiratory syndrome (SARS) were admitted to the intensive care unit, and the mortality rate was as high as 25% for these women. In the current study, we recruited pregnant women with coronavirus disease 2019 (COVID-19) pneumonia from Jan. 20, 2020, to March 24, 2020. At the beginning of the pandemic, the information regarding COVID-19 in pregnancy was limited. Considering that severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has up to 85% sequence similarity with SARS, we were afraid of the possibility that the disease course and prognosis of COVID-19 pneumonia could follow the same trend as SARS in pregnant women. Of note, 85 of 99 (85.9%) pregnant women in this study underwent a cesarean delivery. Some patients underwent cesarean delivery without obstetrical indications, because of uncertainty about the risk of SARS-CoV-2 infection in pregnancy.

SARS-CoV-2 infection itself is not an indication for delivery, unless there is a need to improve maternal and fetal outcomes. The timing and mode of delivery depended mainly on the clinical status of the patient, gestational age, and fetal condition. In the event that a pregnant woman with infection has spontaneous onset of labor with optimal progress, she could be allowed to deliver vaginally. However, the delivery should be accelerated when there is fetal distress, poor progress in labor, or deterioration in maternal condition. If a patient presented term and maternal condition deteriorates, then she would be delivered. The same logic applies for preterm COVID-19 cases after weighing the pros and cons.

Currently, there is still no evidence that pregnant women with COVID-19 are more prone to develop severe pneumonia compared with nonpregnant patients. The clinical characteristics of pregnant women with COVID-19 are similar to those of nonpregnant adults with COVID-19.

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