not be necessary in all women. There is no clear benefit of delivery via cesarean in women with COVID-19.

The limitations of our study include a small sample size of 16 pregnant women from a single obstetric unit and a retrospective design; however, our results suggest that COVID-19 is not an indication for pregnancy termination, and decisions regarding delivery timing must be individualized. Most women with COVID-19 delivered at or beyond the late preterm period, and most who delivered prematurely had other medical indications for preterm birth other than COVID-19. Therefore, choice of delivery method should be based on the usual obstetric indications.

AUTHOR CONTRIBUTIONS

YZ drafted the manuscript. LL, QY, and BXY designed the study. WW, RH, and FH collected the data and conducted data analysis. DC made essential revisions.

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CONFLICTS OF INTEREST

The authors have no conflicts of interest.

REFERENCES


Obstetrics

Maternal mortality from COVID-19 in Mexico

Mario Isaac Lumbreras-Marquez¹,² | Melissa Campos-Zamora³ | Heriberto Lizaola-Diaz de Leon⁴ | Michaela Kristina Farber²

¹Department of Obstetrics and Gynecology, Brigham & Women’s Hospital, Harvard Medical School, Boston, MA, USA
²Department of Anesthesiology, Perioperative and Pain Medicine, Brigham & Women’s Hospital, Harvard Medical School, Boston, MA, USA
³Harvard Medical School, Boston, MA, USA
⁴Hospital Angeles, San Luis Potosi, San Luis Potosi, Mexico

Correspondence

Michaela K. Farber, Brigham & Women’s Hospital, Department of Anesthesiology, Perioperative and Pain Medicine, Harvard Medical School, Boston, MA, USA.
Email: mfarber@bwh.harvard.edu

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COVID-19, the illness caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), is the deadliest pandemic to occur in this century. Common symptoms of COVID-19 include cough, myalgia, fever, chest pain, and headache. However, its clinical presentation ranges from completely asymptomatic to acute respiratory distress syndrome.¹ Pregnant women are susceptible to community spread of COVID-19 because they cannot postpone interactions with healthcare professionals and other women receiving obstetric care.¹
Moreover, the physiological changes of pregnancy may impart added risk to patients with COVID-19. Unfortunately, several associated maternal deaths have been reported to date.2,3 Furthermore, reports from under-resourced locations are lacking, and whether reduced access to maternal care may impact maternal mortality is unknown. Understanding maternal mortality related to COVID-19 is critical for future prevention of morbidity and mortality during this outbreak and anticipated future surges of the disease, particularly in low- to middle-income countries. The present study reports characteristics of COVID-19-related maternal mortality cases in Mexico.

A total of 45,219 cases of COVID-19 in Mexico have been confirmed as of May 17, 2020. Using open data from the Mexican Ministry of Health to conduct a search for COVID-19-positive cases among pregnant women, 308 cases were identified including seven maternal deaths.4 Table 1 shows demographic and clinical characteristics of pregnant women with COVID-19 in Mexico, grouped by survival. Compared to obstetric COVID-19 patients who survived, women who suffered maternal mortality were older and had higher prevalence of diabetes, obesity, and other comorbidities. Of the seven maternal death cases, only two received intensive care and only one received mechanical ventilation. Known exposure to COVID-19 was low in both groups, suggesting lower overall COVID-19 testing and tracing capacity in the population.

High quality maternity care should be guaranteed to all women. However, gaps still remain and are often underscored in the setting of a widespread, global pandemic. In contrast with previous findings,5 the present study reports a 2.3% case fatality rate among parturients with COVID-19, which is an alarming statistic. Unfortunately, the data included in this open source are limited; variables related to pregnancy, neonatal outcomes, or symptoms of COVID-19 are not available. Whether mortality was driven by direct or indirect causes is unclear. Further scrutiny of maternal outcomes and management in under-resourced countries is warranted during and beyond the COVID-19 pandemic.

**AUTHOR CONTRIBUTIONS**
All authors helped with the conception of the work, data collection, analysis and interpretation, helped to draft the work and revise it critically, and approved the final version of the manuscript.

**CONFLICTS OF INTEREST**
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**REFERENCES**