Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Correspondence

Late miscarriage as a presenting manifestation of COVID-19

Sir,

Limited data are available on pregnancy outcome in patients with coronavirus disease 2019 (COVID-19). We report an unusual case of a second-trimester miscarriage as the presenting symptom of COVID-19 in an otherwise healthy pregnant patient.

A 21-year-old primigravid patient presented to the gynaecological emergency room with vaginal bleeding and uterine contractions at 20 weeks of gestation. She was a healthcare worker in a medical accommodation facility for dependent older adults with confirmed COVID-19. Her pelvic examination revealed 4-cm cervical dilation with bulging amniotic membranes. She had no fever and her vital signs were within normal limits. Her body mass index was 35 kg/m^2. Laboratory tests showed a white blood cell count of 9.24 Giga/l with lymphocytopenia (0.87 Giga/l), C-reactive protein of 137 mg/l and ferritin of 261 µg/l. The laboratory findings and her occupation raised suspicion of COVID-19, and isolation measures were implemented. A nasopharyngeal swab sample was collected for a severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) reverse transcriptase-polymerase chain reaction (RT-PCR) test. One hour later, the patient experienced abrupt rupture of membranes, and expelled the fetus and the placenta 6 min later. The fetus weighed 300 g and died immediately after birth. The macroscopic examination did not reveal morphological abnormalities, and the patient declined an autopsy. The SARS-CoV-2 RT-PCR test was positive in the patient and negative in the placenta. Urine, blood, vaginal and placental bacteriologic cultures were negative. Drastic clinical deterioration and severe respiratory syndrome occurred immediately post partum. The pulmonary angio-computed tomography scan revealed signs of pneumonia occupying 25–50 % of the lung fields. The patient was transferred to the COVID-19 unit. Her symptoms improved 2 days later, and she was discharged on day 5. She continued daily treatment of 600 mg hydroxychloroquine and 1000/200 mg lopinavir/ritonavir for 10 days.

To our knowledge, this is the first report of a second-trimester miscarriage as an inaugural manifestation of COVID-19. To date, no studies have indicated the rate of late miscarriage. Baud et al. reported a second-trimester miscarriage in a patient with symptomatic COVID-19 [1]. Boggess et al. found that pregnancy loss was not associated with increased systemic inflammation [2]. In our patient, the subclinical inflammation may have led to the miscarriage. Lymphocytopenia and high levels of C-reactive protein and ferritin could be predictive findings in suspected cases of COVID-19. Further reports on pregnancy outcomes in patients with COVID-19 are mandatory, and medical teams should participate in international registries of emergent pathogens in pregnancy, such as COVI-PREG [3].

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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