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Pregnancy and perinatal outcome of a woman with COVID-19 infection☆

Pronóstico perinatal y de la paciente embarazada con infección por COVID-19

Dear Director,

The COVID-19 coronavirus infection, first identified in December 2019 in Wuhan (China), is an emerging disease that has seen a rapid increase in the number of infected patients worldwide. Not much data are available on how it affects pregnancy. However, there is information on infection by other highly pathogenic coronaviruses, such as severe acute respiratory syndrome (SARS) or Middle East respiratory syndrome (MERS), during pregnancy.[1] Thus, it is known that the mortality rate of SARS infection was 10% in the general population and up to 25% in pregnant women, with no intrauterine transmission demonstrated.[2]

Our 44-year-old patient was 29 + 2 weeks pregnant, did not have any pathological medical history of interest, and had had no recent travel or contact with known infected patients. She came to the center for symptoms that had been ongoing for 12 days that consisted of odynophagia, dry cough, and, in recent days, fever of 39.5 °C.

The obstetric examination was normal. A COVID-19 PCR was performed, which was positive. On the blood test, of note were leukocytes 20,900 (98% PMN), lymphopenia with lymphocytes 200, D-dimer 578 ng/ml, CRP 28 mg/dl, LDH 223 U/l, and procalcitonin 5.33 ng/ml. From a respiratory point of view, with oxygen via nasal cannula at 3 L, she had a PO_2 of 140 mmHg. On the chest X-ray, multilobar bilateral pulmonary infiltrates with an interstitial-alveolar pattern were observed, with alveolar consolidation in the left upper lobe, blunting of the costophrenic angles, and right fissural thickening due to a small amount of pleural effusion (Fig. 1).

Treatment was started with lopinavir/ritonavir, chloroquine, ceftriaxone, and azithromycin. At 48 h, the patient was more tachypneic and, in a few hours, her mechanics of breathing worsened with respiratory acidosis and severe hypoxemia. She required orotracheal intubation and connection to mechanical ventilation.

In light of the clinical deterioration, the gynecology department was contacted, which decided to start fetal lung maturation by means of two 12-mg doses of betamethasone separated by 12 h. At 24 h, a cesarean section was performed in the ICU box without complications for the mother or the child. COVID-19 infection was ruled out in the child. In the following days, there was a progressive improvement in oxygenation and the weaning process was begun.

This patient had satisfactory progress, which is also corroborated by various studies on COVID-19 published during this pandemic. A study of 38 pregnant women infected with the virus demonstrated that maternal prognosis was much better than in previous coronaviruses; none died nor were there any cases of intrauterine transmission to the fetus.[3] In another study on nine pregnant patients with pneumonia due to COVID-19, the authors described the clinical similarity to cases reported in nonpregnant adult patients. No cases of vertical transmission were found.[4]

In another study on 15 patients, it was observed that pregnancy and birth did not worsen the course of symptoms, which was mild with a satisfactory recovery in all cases.[5] Lastly, another study on 16 pregnant women recommended that if there is an indication for obstetric surgery or if there is critical COVID-19 disease, the voluntary interruption of the pregnancy will not increase the newborn's risk of premature birth or anoxia and is beneficial for the treatment of the mother's pneumonia. Like the above authors, they found no cases of COVID-19 among the neonates.[6]

Therefore, to date, there is no evidence that this coronavirus behaves differently in pregnant women than in the general population nor is there evidence of maternal-fetal transmission. With all of these studies, on February 5, 2020, a meeting of Chinese and North American experts was held in which they drafted a series of specific recommendations for the management of pregnant women and neonates born to mothers with suspected or confirmed coronavirus (COVID-19)

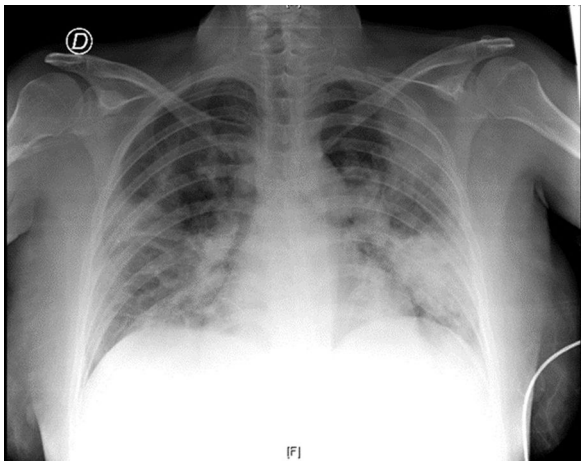

Figure 1 Chest X-ray upon hospital admission.

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infection.[7] As a result of that meeting, a set of recommendations, supported by a greater or lesser degree of clinical evidence, was published. Of these, the following are of note:

- Pregnant women with suspected COVID-19 infection may undergo lung imaging tests (X-ray, CT scan) and COVID-19 diagnostic testing as soon as possible.
- Pregnant women who have suspected or confirmed COVID-19 must be hospitalized, if possible, in negative-pressure rooms.
- The time of the birth must be decided on an individual basis based on maternal-fetal well-being, gestational age, and other concomitant conditions, not just because the pregnant patient is infected. In addition, vaginal birth must be permitted when possible and cesarean section must be reserved for when it is obstetrically necessary.
- It is reasonable to consider regional anesthesia in pregnant women with COVID-19 infection who need a cesarean section, provided that respiratory function allows for it. If not, general anesthesia is much safer.
- Currently, it cannot be affirmed if there is vertical transmission from the mother to the fetus, although there have been some published cases that have not shown evidence of vertical transmission in patients with COVID-19 infection in the last trimester of pregnancy. In any case, it is recommended that the newborns be isolated for at least 14 days and, during this period, direct breastfeeding is not recommended.

It is likely that these recommendations will evolve along with the course of this new disease.

References

1. Rasmussen SA, Smulian JC, Lednicky JA, Wen TS, Jamieson DJ. Coronavirus Disease 2019 (COVID-19) and Pregnancy: what obstetricians need to Know. Am J Obstet Gynecol. 2020, doi:10.1016/j.ajog.2020.02.017, pii: S0002-9378(20)30197-6.
2. Wong SF, Chow KM, Leung TN, Ng WF, Ng TK, Shek CC, et al. Pregnancy and perinatal outcomes of women with severe acute respiratory syndrome. Am J Obstet Gynecol. 2004;191:292–7, doi:10.1016/j.ajog.2003.11.019.
3. Schwartz DA. An analysis of 38 pregnant women with COVID-19 their newborn infants, and maternal-fetal transmission of SARS-CoV-2: maternal coronavirus infections and pregnancy outcomes. Arch Pathol Lab Med. 2020, doi:10.5858/arpa.2020-0901-SA.
4. Chen H, Guo J, Wang C, Luo F, Yu X, Zhang W, et al. Clinical characteristics and intrauterine vertical transmission potential of COVID-19 infection in nine pregnant women: a retrospective review of medical records. Lancet. 2020;395:809–15, doi:10.1016/S0140-6736(20)30360-3.
5. Liu D, Li L, Wu X, Zheng D, Wang J, Yang L, et al. Pregnancy and perinatal outcomes of women with coronavirus disease (COVID-19) pneumonia: a preliminary analysis. Am J Roentgenol. 2020;18:1–6, doi:10.2214/AJR.20.23072.
6. Zhang L, Jiang Y, Wei M, Cheng BH, Zhou XC, Li J, et al. Analysis of the pregnancy outcomes in pregnant women with COVID-19 in Hubei Province. Zhonghua Fu Chan Ke Za Zhi. 2020;55:E009, doi:10.3760/cma.j.cn112141-20200218-00111.
7. Chen D, Yang H, Cao Y, Cheng W, Duan T, Fan C, et al. Expert consensus for managing pregnant women and neonates born to mothers with suspected or confirmed novel coronavirus (COVID-19) infection. Int J Gynaecol Obstet. 2020;149:130–6, 10.1002/ijgo.13146.

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Risk of hepatitis B reactivation associated with treatment against SARS-CoV-2 (COVID-19) with corticosteroids☆

Riesgo de reactivación de la hepatitis B asociado al tratamiento con corticoides frente a SARS-CoV-2 (COVID-19)

Dear Director,

The current health crisis caused by SARS-CoV-2 and the consequences, which are occasionally fatal, of the cytokine storm associated with it have led to therapies aimed at halting hyperactivation of the immune system being used. Among these therapies, corticosteroids have become one of the treatments of choice when clinical and analytical progress is not favorable.

Like all immunosuppressive regimens, corticosteroids are not exempt from risk and ideally, their use would be able to be prevented. Reactivation of previously-acquired infectious would be one of these risks. Of special interest is hepatitis B, both due to its frequency and the existence of tools to stop it. What's more, in a recent study, chronic HBV infection has been related to slowed clearance of SARS-CoV-2.[1]

Along these lines, we reviewed the latest recommendations on management of patients who are candidates for receiving corticosteroids at high doses or in pulses (the indication used in our hospital), in this case for the treatment of SARS-CoV-2.

Firstly, the EASL[2] and the AGA[3] recommend HBV screening by means of determination of HBsAg and anti-HBc for all patients who are going to receive immunosuppressive treat-

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