

CASE REPORT

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Coronavirus disease 2019 on routine testing in eclampsia: a case report

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Abstract

Background: Coronavirus disease 2019 has been associated with adverse pregnancy outcomes, including preeclampsia. Coronavirus disease 2019 and preeclampsia have overlapping clinical features and are therefore challenging to differentiate. Since pregnant women are not routinely tested for coronavirus disease 2019, it is prudent to test for it among patients presenting with preeclampsia or eclampsia.

Case presentation: A 23-year-old female, a Munda, gravida 1 para 0, at 36 weeks and 5 days of amenorrhea presented to Mal Super Specialty Hospital as a referral in a semiconscious state after a severe attack of tonic–clonic seizures. Detailed history from the husband was insignificant except for a persistent cough for the last 7 days. She had denied any visual changes, headaches, or vaginal discharge. Physical examination revealed tachycardia (150 beats per minute), elevated blood pressure (187/111 mmHg), tachypnea (36 breaths per minute), and oxygen saturation of 94% on room air. Routine coronavirus disease 2019 rapid test was positive, and urine dipstick was +3. Additional tests revealed leukocytosis and elevated liver enzymes. Chest radiograph revealed prominent interstitial markings, and a bedside transabdominal ultrasonography showed a live single intrauterine fetus in cephalic presentation with normal cardiac activity and movements. A diagnosis of a prime gravida with eclampsia and coronavirus disease 2019 was made. She was managed with intravenous labetalol; she had already received a loading dose of intravenous magnesium sulfate, and we administered two maintenance doses during monitoring. Within an hour of admission, she had a spontaneous rupture of the amniotic membranes, with meconium-stained liquor (grade 2), and the fetal heart rate (148 beats per minute) was reassuring. She had an uncomplicated vaginal delivery of a live male newborn. Shortly after delivery, she developed slight respiratory distress and significant fluid overload that was managed with furosemide. Coronavirus disease 2019 reverse-transcription polymerase chain reaction test came back negative for the neonate and positive for the mother. She was shifted to the coronavirus disease 2019 treatment unit, and her contact with the child was limited. She was kept on a course of tablets ivermectin, zinc, vitamin C, montelukast, azithromycin, metronidazole, and injectable pantoprazole. The mother and child were discharged on day 15 after recovery with negative COVID nasopharyngeal swab.

Conclusion: A diagnosis of preeclampsia or eclampsia should prompt testing for coronavirus disease 2019.

Keywords: Eclampsia, Preeclampsia, COVID-19, Routine testing, Pregnancy

Background

Coronavirus disease 2019 (COVID-19), an infection caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), was initially not attributed to serious maternal or neonatal morbidities [1, 2]. However, with the evolving literature, it has been reported to increase the risk for adverse pregnancy outcomes,

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- (Baltimore). 2019;98(6): e14301. <https://doi.org/10.1097/MD.00000000000014301>.
10. Ahmed I, Eltaweel N, Antoun L, Rehal A. Severe pre-eclampsia complicated by acute fatty liver disease of pregnancy, HELLP syndrome and acute kidney injury following SARS-CoV-2 infection. *BMJ Case Rep.* 2020;13(8): e237521. <https://doi.org/10.1136/bcr-2020-237521>.
 11. Di Mascio D, Khalil A, Saccone G, Rizzo G, Buca D, Liberati M, et al. Outcome of coronavirus spectrum infections (SARS, MERS, COVID-19) during pregnancy: a systematic review and meta-analysis. *Am J Obstet Gynecol MFM.* 2020;2(2):100–7. <https://doi.org/10.1016/j.ajogmf.2020.100107>.
 12. Huerta Saenz IH, Elías Estrada JC, Campos Del Castillo K, Muñoz Taya R, Coronado JC. Características materno-perinatales de gestantes COVID-19 en un hospital nacional de Lima, Perú. *Rev Peru Ginecol Obstet.* 2020. <https://doi.org/10.31403/rpgo.v66i2245>.
 13. Mathew R, Raj RS, Sudha P. Late postpartum eclampsia without prodroma. *Neurol India.* 2003;51:539–40.
 14. Kim YM, Ansari N, Kols A, et al. Prevention and management of severe pre-eclampsia/eclampsia in Afghanistan. *BMC Pregnancy Childbirth.* 2013;13:186. <https://doi.org/10.1186/1471-2393-13-186>.
 15. Tukur J, Ahonsi B, Mohammed Ishaku S, et al. Maternal and fetal outcomes after introduction of magnesium sulphate for treatment of preeclampsia and eclampsia in selected secondary facilities: a low-cost intervention. *Matern Child Health J.* 2013;17:1191–8. <https://doi.org/10.1007/s10995-012-1105-9>.
 16. Joudi N, Henkel A, Lock WS, Lyell D. Preeclampsia treatment in severe acute respiratory syndrome coronavirus 2. *Am J Obstet Gynecol MFM.* 2020;2(3): 100146. <https://doi.org/10.1016/j.ajogmf.2020.100146>.
 17. Boelig RC, Manuck T, Oliver EA, et al. Labor and delivery guidance for COVID-19. *Am J Obstet Gynecol MFM.* 2020;2:100–10. <https://doi.org/10.1016/j.ajogmf.2020.100110>.

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