

## Case Report: Eclampsia in a Post COVID-19 Patient

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COVID-19 infection has attracted many clinicians and researchers to study its disease process and complications, as it is not only causing respiratory problems, but also affecting pregnant mothers and their babies. Many recent studies have shown that COVID-19 infection increases the risk of developing preeclampsia via its effect on the placenta. This case highlights COVID-19 infection as one of the emerging risk factors for the development of preeclampsia and eclampsia. A 26 years old patient, primigravida at 28 weeks of pregnancy with no known underlying condition, was presented with one-day history of visual disturbance, and two-week history of epigastric pain and vomiting. She had an uncomplicated COVID-19 infection category 2 at 20 weeks of pregnancy. During the assessment, she was alert but lethargic looking. Vital signs showed a blood pressure of 176/98 mmHg, a pulse rate of 98 per minute, SpO<sub>2</sub> of 97% and a capillary sugar level of 5.8 mmol/L. She then developed an eclamptic episode which prompted immediate delivery of the baby via emergency caesarean section. Post-delivery, magnesium sulphate infusion was started, and her blood pressure was controlled with labetalol. Subsequently, she was discharged well after one week of admission. The baby with a weight of 800g was admitted to the neonatal ICU for further care. There have been studies that showed COVID-19 infection affecting the placenta via its effect on angiotensin-converting enzyme 2 (ACE2). This enzyme is responsible for the haemostasis of maternal circulation and its downregulation will lead to a cascade of events that is similar to the pathogenesis of preeclampsia. Further research and evidence are needed to study this enzyme with the hopes to prevent the development of preeclampsia and eclampsia.

**Keywords:** preeclampsia, eclampsia, COVID-19, angiotensin-converting enzyme 2

DOI: <http://dx.doi.org/10.31344/ijhhs.v6i0.421>

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