Dexamethasone

Hyperglycaemia and adrenal insufficiency: 2 case reports

A 42-year-old pregnant woman developed hyperglycaemia while receiving treatment with dexamethasone for acute respiratory distress syndrome. Following delivery, the male infant [*exact age at reaction onset not stated*] developed adrenal insufficiency following in-utero exposure to dexamethasone [*time to reactions onsets not stated*].

The woman with G8P6016 presented due to acute hypoxic respiratory failure at 26 weeks of gestation. Following investigations, COVID-19 infection was diagnosed. She was intubated and transferred to a tertiary care centre. Further, a low tidal volume strategy was employed for lung protection in the setting of acute respiratory distress syndrome (ARDS). She received IV dexamethasone 20mg for 5 days followed by IV dexamethasone 10mg for 5 days and off label therapy with convalescent anti-SARS-CoV-2 plasma [convalescent plasma] on hospitalisation day 2. Additionally, she received remdesivir 200mg \times 1 [*Sic.*] then 100mg every 24h for 9 days. Further, she received empirical therapy with azithromycin and ceftriaxone. Following the diagnosis of a basilic vein thrombosis, enoxaparin sodium [enoxaparin] was initiated, which was eventually transitioned to heparin infusion. She developed dexamethasone-induced hyperglycaemia.

Therefore, the woman started receiving insulin infusion, and eventually, she became euglycaemic. The evening of hospitalisation day 16, progressive hypoxia, declining lung compliance and increasing plateau pressures were noted, requiring increasing ventilator support parameters and diuretic therapy with furosemide to maintain SpO₂ at 90%. Further, heparin was stopped, and primary caesarean delivery was performed at 29 weeks 1 day. Eventually, she delivered a male baby having weight of 1310g. The baby was admitted to the neonatal ICU. The amniotic fluid and placenta cultures were negative for COVID-19. Subsequent testing of the baby on day of living (DOL) 3 and DOL 14 were negative for COVID-19. On hospitalisation day 30, tracheostomy was performed. The ventilator was weaned off, and she was transferred to intermediate care on hospitalisation day 40. She was discharged to home on hospitalisation day 52, requiring home oxygen at night and continued nursing care. The infant was found to have experienced adrenal insufficiency possibly due to in-utero exposure to dexamethasone, and he was discharged home on DOL 57 in good condition.

Jacobson J, et al. Use of dexamethasone, remdesivir, convalescent plasma and prone positioning in the treatment of severe COVID-19 infection in pregnancy: A case report. Case Reports in Women's Health 29: Jan 2021. Available from: URL: http://doi.org/10.1016/j.crwh.2020.e00273