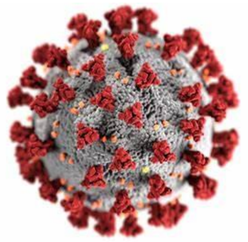
Anaesthetic Management of COVID-19 and Malignant Hyperthermia for Emergency Caesarean Section

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INTRODUCTION

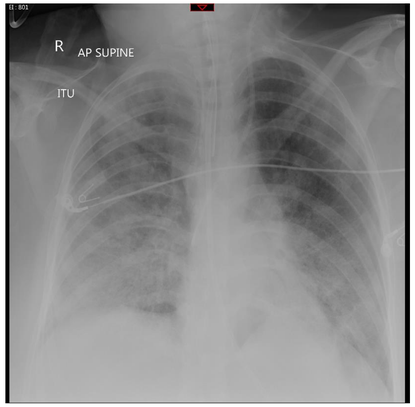
We present a case of complex decision making about anaesthetic management in a lady with malignant hyperthermia, COVID-19, anxiety, obesity and fetal distress. Pregnant women with COVID-19 are more likely to be delivered by caesarean section.

Risk factors for severe COVID-19 in pregnancy include; ethnic minority, age >35 years, increased body mass index, pre-existing comorbidities (especially cardiac or respiratory). Pregnant women with COVID-19 are more likely to be delivered by caesarean section. The decision making in the management of these patients is complex and requires a multidisciplinary team approach to ensure the safety of the patient and delivery of fetus.

CASE REPORT

A 37 year old female, 39+4 weeks gestation, parity 1+0, previous caesarean section, presented to maternity assessment unit with uterine contractions, in established labour. She was unvaccinated and had tested positive for COVID-19 five days earlier, and an elective caesarean section had been planned for 10 days after her positive PCR test. She had a past medical history of hypothyroidism, biopsy proven malignant hyperthermia(MH), anxiety and obesity body mass index 43 (38 at booking).

CASE REPORT



At presentation her cardiotocography was abnormal requiring urgent delivery, category 2. She was tachypnoeic and tachycardic but oxygen saturations were 100% on air. There were no recent blood results available. A successful single-shot spinal anaesthetic was performed and her baby was delivered in good condition and the operation was uncomplicated. She was discharged home day 2 post-section, but deteriorated day 10 of her COVID-19 illness with worsening hypoxia secondary to COVID-19 pneumonitis. She was admitted to ICU for invasive ventilation and proning. Unfortunately she was not deemed a candidate for extracorporeal membrane oxygenation (ECMO), and after a superimposed bacterial infection, deteriorated precipitously and passed away after 3 weeks in ICU.

DISCUSSION

We carried out regional anaesthesia in this patient after risk-benefit analysis. Despite the potential risks of thrombocytopaenia and disseminated intravascular coagulopathy with COVID-19, we felt the benefits of spinal anaesthesia in a patient with malignant hyperthermia, fetal compromise and potential postoperative respiratory decompensation outweighed these risks. Prior handover from the high-risk clinic enabled preparation for total intravenous anaesthesia at short notice. She tolerated the spinal anaesthetic well and was able to comfortably spend time with her baby immediately after.

This case is important as the management of patients for operative delivery with COVID-19 is becoming more important with the increasing prevalence of COVID-19 and with a low number of pregnant patients vaccinated. This case also highlights the importance of COVID-19 vaccinations in the at risk groups.

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