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Emergency caesarean at 31 weeks in an ICU patient with severe COVID-19

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Introduction

Pregnancy is not known to be a risk factor for covid -19 infection, however due to changes in the immune system, pregnant women may be at higher risk of developing severe infection and critical illness in the later stages of pregnancy (1). Decision making around the management of pregnant patients with severe infection is complex and should involve a multi-disciplinary approach (2).

Case report

37yrs Female, 31 weeks pregnant admitted with ongoing COVID symptoms for 11 days

Background: Asthma, High BMI 37 (Risk factor for covid 19)

Ethnicity: Indian Asian (Risk factor for covid 19)

Examination: SpO2 88% on room air, RR 26/min with increased work of breathing

Investigations: COVID Positive, CRP 222, CTG Normal

CTPA: widespread bilateral ground-glass shadowing, but no pulmonary emboli

Treatment: The patient was admitted to ICU and CPAP was initiated

SpO2 target of over 95% was set to avoid foetal hypoxia

MDT: ICU, Obstetric and Foetal Medicine Consultants

Given the severity of infection, the degree of pregnancy-related respiratory compromise and the likelihood of further deterioration in the next 24 hours, a decision was reached to perform an emergency caesarean section under GA.

Management

THEATRE MANAGEMENT:

The patient was transferred to theatre and following a comprehensive team briefing, a rapid sequence induction was performed. At induction she briefly desaturated to 70% and then once intubated required an FiO2 of 1.0 to maintain saturations above 90%, due to poor lung compliance. The baby was delivered 4 minutes after induction, initially in poor condition; however she improved to an Apgar score of 10 at 10 minutes and was transferred to the Neonatal unit.

POSTOPERATIVE MANAGEMENT:

The patient was transferred back to ICU and received convalescent plasma as part of the recovery trial. She remained intubated and ventilated for 10 days, with a progressive reduction in her ventilator support, after which she was successfully extubated. 16 days after the caesarean section she was stepped down to the ward and on day 22 both were discharged home and remain well.

Discussion

This case highlights the complexity surrounding the management of pregnant patients who develop severe covid19 infections. In severe infection with associated hypoxia, the outcomes for the mother are potentially improved by undergoing cesarean section.

References

1.Knight M, Bunch K, Vousden N, et al. Characteristics and outcomes of pregnant women admitted to hospital with confirmed SARS-CoV2 infection in UK: national population based cohort study. BMJ 2020;369:m2107. doi: 10.1136/bmj.m2107

2. RCOG. Coronavirus (COVID-19) infection and pregnancy. Version 12: updated 14 October 2020.