Management of a parturient with acute respiratory distress for caesarean delivery using spinal anaesthesia supported with novel respiratory support measures (CPAP, HFNC)

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Background

Pre-eclampsia and respiratory diseases are significant contributory factors for maternal cardiac arrest ⁽¹⁾. We report the management of a parturient undergoing emergency caesarean section with acute respiratory distress secondary to both pre-eclampsia and influenza.

Case report

- 18year- old prima gravida of 38+5/40 gestation
- 3 day H/o cough and feeling unwell which was managed with HDU care and sepsis bundle.
- Following clinical improvement labour was induced.
- Labour analgesia was provided with remifentanil PCA.
- In the following hours she became tachypnoea, tachycardia, acidotic with dropping saturation. (RR 22, HR 127, Spo2 91%).
- Caesarean section under spinal anaesthesia supplemented with CPAP.

Table.1 Investigations

CRP	97.4
PCR	68ng
Albumin	33
Urine Protein	++
PH	7.31
Pco2	4.1
Po2	9
BE	-9.6
Hco3	17.4

References

- 1) MBRRACE-UK Report December 2016.
- 2) Clinical Anaesthesiology, Sept 13, 2016:Rare but Devastating: Study Examines Maternal Cardiac Arrest Rates.

Chest X ray

Discussion

- Pre-eclampsia, influenza infection, asthma, and respiratory depression from remifentanyl all contributed to rapid deterioration.
- Many studies have confirmed regional anaesthetic techniques reduce morbidity and mortality in emergency caesarean section.
- Regional anaesthesia when supplemented with additional respiratory support measures could be used to avoid general anaesthesia, improve outcomes and reduce need for prolonged ventilatory support.

Learning Points

- The role of non-invasive respiratory support (HFNC, CPAP) to facilitate safe regional anaesthetic techniques for emergency caesarean in patients with respiratory compromise should be considered.