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MANAGEMENT OF PERIOPERATIVE PULMONARY EDEMA WITH SEVERE PRE-ECLAMPSIA COMING FOR EMERGENCY CAESAREAN SECTION.

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Abstract
Pre-eclampsia is a diverse, multiorgan group of related disease processes that can present in pregnancies after 20 weeks gestation. The presentation can be variable; can include the combination of maternal hypertension and proteinuria. It can also cause foetal morbidity and mortality, including an increased incidence of placental abruption, foetal growth restriction, and preterm delivery. Pulmonary oedema can occur in some cases and therefore correct fluid therapy should be planned.

Keywords: Pre-eclampsia, Pulmonary edema, Caesarean section.

Introduction

The etiology of preeclampsia is multifactorial, and its initial presentation can be mild or severe, including eclamptic grand mal seizures. Pulmonary oedema can occur as a result of either a low Colloid Oncotic pressure (COP) in association with increased intravascular hydrostatic pressure or increased capillary permeability, early diagnosis and appropriate management are essential.

Case Report

A 24 year primigravida with 33 weeks gestation, severe pre-eclampsia on treatment with tab.
Alpha methyldopa 500 mg TID, tab. Labetalol 100 mg BD, tab. Nicardia 5mg BD , tab. Ecosprin 75 mg OD since 15 days and tab. Ecosprin was stopped two days prior to the day of surgery was posted for emergency caesarean section. On preanaesthetic evaluation patient was conscious, co-operative, oriented, moderately built and nourished. On examination, she had HR-80 beats/min and BP-160/110mmHg; CVS, RS normal, B/L pedal pitting edema +. Airway Mallampatti class 2, sacral edema was present. Routine investigations revealed -Hb-11.1 gm,BT-2min10sec, CT-5min, blood group B+ve , platelets-1,50,000 ,PT-19.7sec ,APTT 33.4sec, INR 1.65, urine albumin 3+, LDH 630U/L, albumin 2gm/dl, uric acid 7.4mg/dl, fundoscopy revealed no papilledema. Patient was accepted under ASA grade III E and shifted to OT.Premedication Inj Metoclopramide 10

mg and Inj Rantac 50 mg was given and started with IVF RL 500ml. With aseptic precautions using 25G spinal needle at L3L4 interspace, Inj Bupivacaine 0.5%(H) -1.8cc given, sensory level was achieved till T6 level.. Intraop NIBP, ECG, Spo2 and $EtCO_2$ monitored. Single live female baby was extracted. Inj Syntocin 10 units on drip. Patient after extraction of the baby started complaining of difficulty in breathing and tachypneic, saturation came down to 80-82% with O2 face mask; on auscultation bilateral crepitations were present. Suspecting pulmonary oedema, patient was intubated after giving Inj Glycopyrolate 0.2mg, Inj Fentanyl 50 mcg, Inj Propofol 100mg ,Inj Scoline 100mg with 7 size ETT. After intubation profound frothy secretions present in ETT. Patient was maintained on Inj Atracurium, O_2, N_2O and Isoflurane; Inj Lasix 30 mg given and IPPV continued with PEEP. IVF restricted to 100ml. After 20 minutes, crepitations decreased. Patient was reversed with Inj Neostigmine 2.5 mg and Inj Glycopyrolate 0.4mg and extubated. Urine output-350 ml. Patient shifted to labor room.

Discussion

The triad of Pre-eclampsia includes vasospasm, plasma volume contraction, local or disseminated intravascular coagulation. Spinal anesthesia can be an option for cesarean delivery in severe preeclampsia. [1] In pre-eclampsia pulmonary oedema can be complication. Pulmonary oedema is a potential cause of hypoxia in the perioperative patient. Frothy sputum may be expectorated or observed in the endotracheal tube. The diagnosis of pulmonary oedema may be supported by finding crepitations and sometimes wheeze on auscultation of the lung. The diagnosis of pulmonary oedema is made on assessment of the combination of history, symptoms, clinical signs, and investigations and on excluding alternative diagnoses such as aspiration pneumonitis and pneumonia. Treatment of pulmonary edema includes oxygen, diuretics, fluid restriction to achieve reduction of preload and afterload, and intermittent positive pressure ventilation.[2,3].In our case first spinal anesthesia was given, after baby extraction patient developed pulmonary oedema. Patient intubated and managed with IPPV, diuretics and fluid restriction. Patient extubated and observed. The cause of pulmonary oedema could be because of fluid overload and post extraction as the uterus contracts intravascular volume increases. Proper vigilance early recognition and timely intervention helped us to manage perioperative pulmonary oedema sucessfully.

Conclusion

In severe preeclampsia, after extraction of baby, pulmonary edema can occur. Fluid management and monitoring is essential to prevent this and immediate recognition and treatment of pulmonary edema will have a good outcome.

References

1. Henke VG, Bateman BT, Leffert LR. Focused review: spinal anesthesia in severe preeclampsia. Anesth Analg 2013;117(3):686-93.
2. Mushambi MC, Halligan AW, Williamson K. Recent developments in the pathophysiology and management of pre-eclampsia. Br J Anesth 1996; 75:133–48.
3. Hawkins JL. Anesthesia and preeclampsia/eclampsia. In: Norris MC, editor. Obstetric Anesthesia. Philadelphia: JB Lippincott; 1993. pp. 501–28.