

Perimortem Caesarean Delivery: Rapid Response Saves Mother and Baby in Cardiac Arrest

Sharvari Kasture, Robert Rednic

Chesterfield Royal Hospital, UK

Objective: This case highlights the rare but critical scenario of a perimortem cesarean section performed on a 32-year-old gravida 5 para 2 patient following sudden cardiac arrest in labour, likely due to anaphylaxis. It emphasises the importance of rapid decision-making, surgical expertise, teamwork, and effective communication to achieve favourable maternal and neonatal outcomes.

Case: A 32-year-old woman, gravida 5 para 2, with a history of two laparoscopic ectopics and two normal vaginal deliveries, presented at term in active labour, dilated 4 cm. While in labour, she suffered a sudden cardiac arrest, suspected to be due to an anaphylactic reaction to an anaesthetic drug. Immediate cardiopulmonary resuscitation (CPR) was initiated. A perimortem lower-segment cesarean section (LSCS) was performed on the bed in the labour room at the third minute of cardiac arrest. The baby was delivered by the reverse breech technique within one minute (fourth minute of cardiac arrest) as the head was very low in the pelvis. Return of spontaneous circulation (ROSC) was achieved at the fifth minute post-arrest. The patient was subsequently shifted to the operating theatre for uterine suturing. The total blood loss was 400 ml. Both mother and baby had favourable outcomes, with the mother requiring a short stay in the intensive care unit (ITU) and no significant complications.

Discussion: Perimortem cesarean section is a rare, but life-saving procedure performed to optimize maternal resuscitation efforts and improve neonatal outcomes. In this case, the rapid identification of cardiac arrest and probable etiology, along with the prompt initiation of CPR and decision to perform LSCS within three minutes, were key to the successful outcomes. Challenges included limited space and resources in the labor room, the need for surgical precision on the bed, and the requirement for seamless team coordination and communication.

The reverse breech technique was employed due to the low position of the foetal head, showcasing adaptability in surgical skills. This case underscores the importance of multidisciplinary team training, including drills for obstetric emergencies, and the role of good communication in overcoming logistical and clinical challenges.

Conclusion: This case demonstrates that timely perimortem cesarean delivery, even under suboptimal conditions, can result in excellent maternal and neonatal outcomes. It highlights the need for preparedness through regular obstetric emergency simulations, robust protocols, and training in multidisciplinary teamwork. Future research should focus on optimising decision-to-delivery intervals in perimortem settings and developing guidelines for effective management in non-theatre environments.