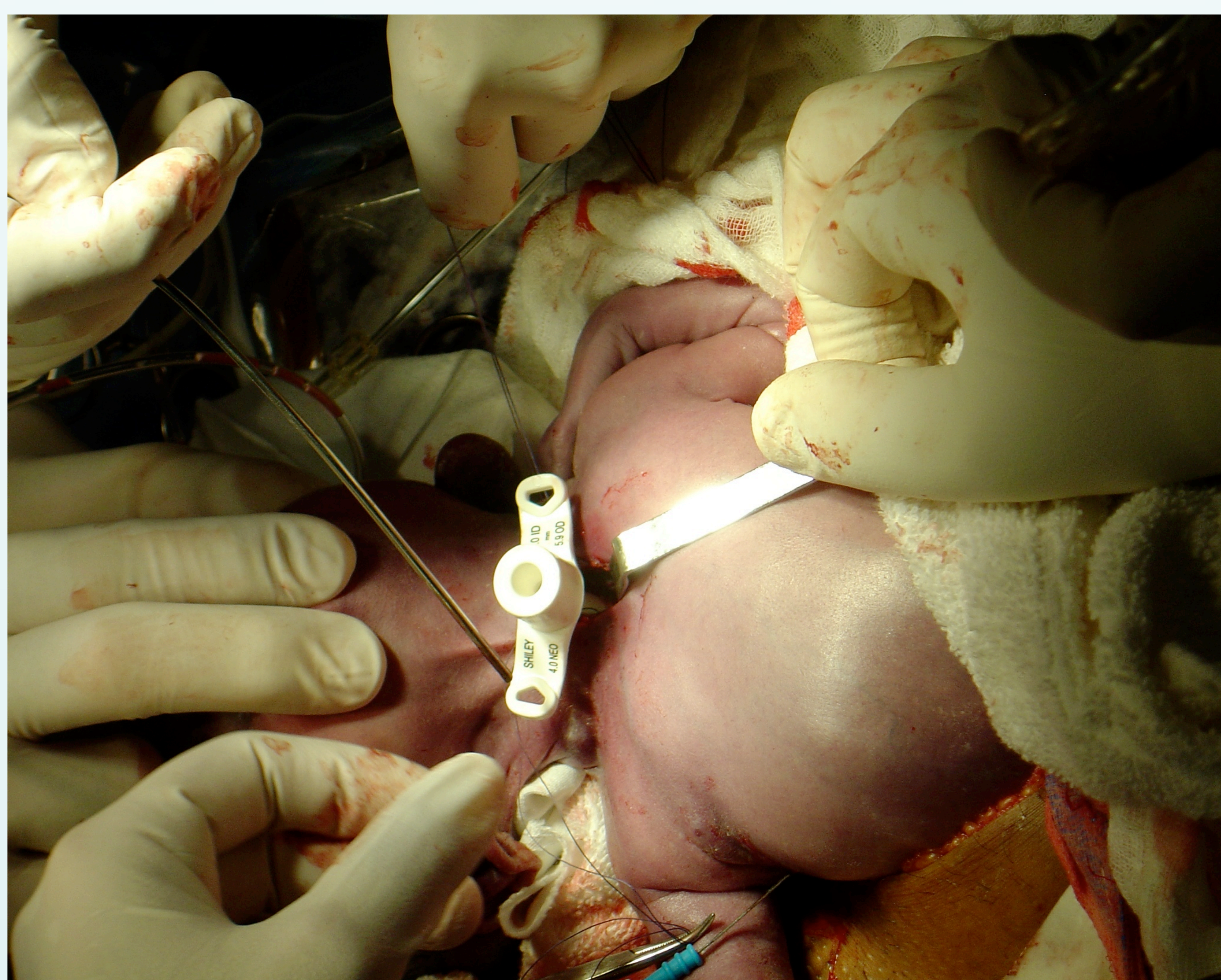


Ex utero intrapartum surgery (EXIT): Combined spinal epidural anesthesia (CSE) and general anesthesia with remifentanyl. Case Report

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Background: Congenital high airway obstruction syndrome (CHAOS) is a life-threatening condition with a poorly understood natural history[1]. EXIT is a controlled technique that is designed to allow partial fetal delivery via cesarean section with subsequent establishment of a safe fetal airway[2], requires maintenance of uterine relaxation to continue placental perfusion and prevent placental separation[3].



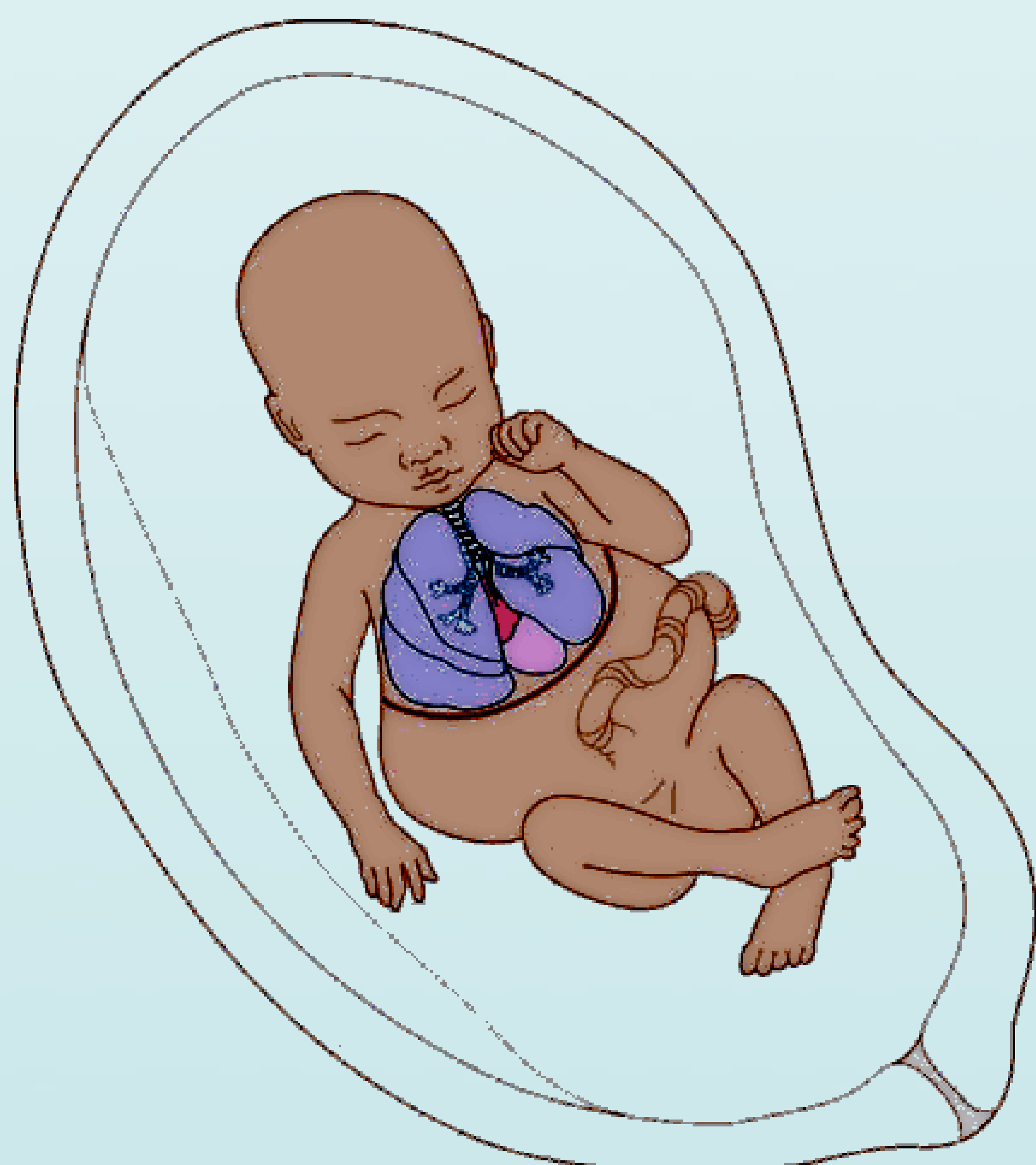
Case Report: A healthy 28 year old primigravida, 33 weeks of gestation, with a fetus known to have CHAOS due to tracheal atresia and ascites, scheduled for EXIT.

Phase 1: ascites drainage by puncture and fetus external version (breech presentation) before EXIT. Low dose CSE was chosen for this phase (5 mg hyperbaric bupivacaine and 25 ug of fentanyl intrathecally), with light conscious sedation (midazolam 5 mg). Epidural catheter was placed.

Phase 2: Fetus had a tracheal atresia. Laryngotracheoplasty was needed. Based on the estimated fetal weight an intramuscular injection of fentanyl 10 ug/kg, vecuronium 0.2 mg/kg and atropine 10 ug/kg was given to the fetus[4]. After propofol induction, sevoflurane (approximately 2 MAC) and intravenous nitroglycerin, to ensure a fully relaxed uterus; and remifentanyl infusion (cardiovascular stability), was given to the mother. Hypotension was prevented with boluses of phenylephrine.

Discussion: Fetoplacental support successfully lasted for 20 min, fetus laryngotracheoplasty was done and was born with apgar 3/4.

Conclusion: CSE should be considered for EXIT. Nitroglycerin infusion along with deep volatile anesthesia provides full uterine relaxation preventing placental separation while preserving placental perfusion. Remifentanyl should be considered in high-risk obstetric surgery[5].



References:

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