

## Ex-Utero Intrapartum Treatment (EXIT) for Severe Retro-Micrognathia and Congenital High Airway Obstruction Syndrome in Breech/Vertex Dichorionic-Diamniotic Twins

- 28 G1P0 female at 35 weeks and 6 days with breech/vertex dichorionic-diamniotic twins
  - Twin A: healthy breech
  - Twin B: severe retro-micrognathia and confirmed severe congenital high airway obstruction syndrome with an oropharyngeal diameter of 2 mm
- Uterine relaxation, maintenance of maternal-fetal circulation, and fetal immobilization were key for successful twin delivery and a general anesthetic was chosen
- Interdisciplinary consultation and planning amongst Maternal Fetal Medicine, Obstetrical Anesthesia, Pediatric Anesthesia, Pediatric General Surgery, Neonatology, and ENT Surgery
- Our anesthetic goals and subsequent plan centered around 4 clearly defined phases of the operation allowing for organized pre-operative planning and intra-operative communication amongst the many teams



- Stage 1: pre-induction arterial line and 2nd large bore IV, pre-oxygenation and cricoid pressure; anesthesia was induced with 1.5 mg/kg of propofol and 1 mg/kg of succinylcholine; airway secured; maintained on an air-oxygen mixture of 50% and sevoflurane with a combined MAC of 1.0; Twin A delivered successfully
- Stage 2: sevoflurane to a MAC of 2; IV nitroglycerine on standby; amnio infusion by obstetrics; phenylephrine infusion to maintain MAP>65, remifentanyl infusion at 0.1 mcg/kg/min to ensure fetal immobilization; Twin B airway secured by ENT and delivered successfully
- Stage 3: 100 mcg of carbetocin; sevoflurane purged; propofol infusion at 250 mcg/kg/min started; 50% nitrous for awareness during transition to TIVA; phenylephrine infusion to maintain MAP>65; crystalloids given, blood/TXA/uterotonics on standby and given as needed
- Stage 4: IV titration of hydromorphone; ultrasound guided transverse abdominus plane blocks; patient awoken and extubated



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