Anesthesia for Cesarean Section in a Patient with Phocomelia and Lack of All Extremities

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Case: A 31 year old G5P4 presented for repeat cesarean section. The patient suffers from phocomelia with absence of all extremities except a small (8 cm long) left lower extremity remnant secondary to intrauterine thalidomide exposure. The patient refuses spinal and/or epidural anesthesia due to a failed attempt at spinal anesthesia in the past. The patient's airway was a Class I Mallampati with good neck extension. Management: Attention was turned to intravenous access and ASA monitoring. Laboratory was obtained and intravenous access was established via the left external jugular vein. Pulse oximetry was placed on the ear lobe. Non-invasive blood pressure monitoring was obtained using a small pediatric cuff on the left distal rudimentary extremity. EKG monitors were placed in the usual positions. Anesthesia was induced with Pentothal 175 mg IV and endotrachael was achieved with Succinylcholine 80 mg IV in rapid sequence. Anesthesia was maintained with isoflurane, oxygen and nitrous oxide. The patient was extubated at the end of the case and transported to recovery without incident.

Discussion: Due to the patient's body habitus, significant challenges arose during the care of this patient including appropriate placement of both blood pressure and pulse oximetry monitors, as well as establishing intravenous access. Had there not been a rudimentary extremity compatible with a small pediatric blood pressure cuff, invasive arterial monitoring might have been necessary. Placement of a femoral arterial line is relatively contraindicated in the pregnant patient. This patient effectively had no axilla or palpable axillary artery or femoral artery. In addition to difficulty with appropriate monitoring, questions arose regarding general anesthesia versus neuraxial anesthesia, and as such, appropriate agents and dosing for neuraxial anesthesia. This patient prompts several interesting obstetrical anesthesia issues including thalidomide teratogenicity, Intraoperative monitoring, choice and dosage of anesthetic agents for cesarean delivery in the rare patient without any extremities.