The Urgent Separation of Newborn Omphalopagus Conjoined Twins
Victoria Elwell, MD; James Eiszner, MD; Ellen Basile, DO
Department of Anesthesiology
University of Oklahoma College of Medicine, Oklahoma City, Oklahoma

INTRODUCTION
Conjoined twins are birthed at an estimated frequency of 1,250,000 live births. Of these, 18% are omphalopagus with an incidence of 1.14 million live births. It is extremely rare for conjoined twins to undergo a separation during the first week of life because of a 50% mortality rate.

CASE
We present a case of female omphalopagus twins born at 34 weeks EGA. This case is of particular interest because it involved a birth associated with a neonatal urgency requiring an expedited separation at day of life (DOL) 2.

These preterm twins were delivered via C-Section with APGARs 7, 9 and 9, 9 respectively. They were conjoined laterally and could lie side by side. The twins suffered from a shared bladder extrophy and imperforate anus requiring urgent loop colostomies on DOL 2.

Anesthetically this procedure required open lines of communication between anesthesia and surgical teams. Staging meetings were performed both in the office level as well as in the operating theatre. Dry runs with the department’s IT director as well as anesthesia techs helped prepare for a successful execution of dual anesthetics and dual AIMS. The two teams were designated as “Orange” team for Baby A and “Blue” for Baby B. The twin’s small size and conjoined physiology offered limited access therefore meticulous coordination was required for the sequential inductions and intubations.

Inductions were performed with ketamine and rocuronium. Endotracheal tubes of ID 3.0mm cuff were secured. In addition to PICCs and peripheral IVs, arterial line placement was performed. Anesthesia was maintained with 0.2-0.4% sevoflurane, rocuronium, and fentanyl infusion. Foley placement was not possible due to the abnormal anatomy. Fluid management included lactated ringers and 5% albumin. Baby A suffered from hypotension requiring packed red blood cell transfusion. The twins survived the surgery and were eventually discharged several weeks later.

There are only two other cases reported in the literature that documented the survival of omphalopagus twins undergoing emergent separation surgery within the first 48 hours of life. Our case features the youngest pair of omphalopagus twins that survived a surgical separation.

REFERENCES