**PO02   Gastric pull-up surgery in a pediatric patient - a case report**

Rui Filipe Santos(1); Flávia Oliveira(2); Amélia Ferreira(2)

(1) Centro Hospitalar do Tâmega e Sousa, EPE / Hospital Padre Américo, Vale do Sousa (2) Centro Hospitalar Universitário de São João

Background:Esophageal replacement surgery presents unique anesthetic challenges related to extensive tissue dissection. We report a case of a child proposed for gastric pull-up surgery for correction of long-gap esophageal atresia.

Case report: A 2 years old child, female, 8.3kg, ex-preterm (28 weeks), presenting  polymalformative syndrome - minimal sinus venous atrial septal defect, anorectal malformation, renal dysplasia, pyriform sinus stenosis, and type C esophageal atresia, in the context of  several unsuccessfully previous surgeries and long-gap esophageal atresia, was proposed for gastric pull-up surgery. Anesthesia was induced with fentanyl and propofol, while maintaining spontaneous ventilation. Intubation through tracheostomy was achieved with a 3mm micro cuffed ETT, confirmed by fibroscopy. Anesthesia was maintained with sevoflurane, fentanyl and rocuronium. Invasive blood pressure, BIS and neuromuscular blockade were monitored in addition to ASA monitoring standards, and lung-protective ventilation was performed. Two well functioning peripheral lines and a central venous catheter were placed. Intraoperatively hypotension occurred, but managed successfully with interruptions of mediastinal dissection, fluids, blood transfusion and vasopressors. After 8 hours of surgery, she was transferred sedated and ventilated to Pediatric Intensive Care Unit (PICU). Postoperatively, a diagnosis of chylothorax with suspected thoracic duct injury was made. Octreotide was started, with progressive clinical improvement. A blood transfusion was required after surgery and vitamin K was administered due to coagulation disorders. The patient remained ventilated during 10 days and transferred to pediatric ward 17 days after surgery.

Discussion:Gastric pull-up surgery involves blunt posterior mediastinal dissection to create a tunnel for gastric interposition, that interferes with cardiac filling and may cause significant vagal stimulation, leading to hypotension and cardiac arrhytmias1. In our case, the great challenge was the hemodynamic instability during mediastinal dissection with the need of several surgical interruptions. We  acknowledge that careful intraoperative monitoring is required and that a close relationship between anesthesiologist and surgeons is crucial in order to minimize the hemodynamic impact of the procedure.

References:

1. Ain-Shams J Anesthesiol. 2021; 13:56.