5-5-2022

Heterotaxy in a Newborn with Transposition of the Great Arteries: A Case Study

Lucas Betts
Creighton University School of Medicine

Terence Zach
Creighton University School of Medicine

Child Health Research Institute

University of Nebraska Medical Center

Children's Hospital & Medical Center

CHRI Pediatric Research Forum 2022 Abstract

Heterotaxy in a Newborn with Transposition of the Great Arteries: A Case Study

Lucas Betts and Terence Zach, MD

Creighton University School of Medicine, Department of Pediatrics

Abstract

Heterotaxy is a rare congenital condition that involves abnormal arrangement of the thoracic and abdominal organs across the left-right axis and often includes complex cardiac malformations. A case of heterotaxy with concurrent transposition of the great arteries, situs inversus totalis, and coarctation of the aorta is presented in a newborn male who had an uncomplicated vaginal delivery at 39 weeks gestation. The infant was started on continuous positive airway pressure due to low oxygen saturations, and intravenous prostaglandin E1 was administered to maintain ductus patency. After 5 days, the infant underwent a successful arterial switch, ductus arteriosus ligation, atrial septal defect closure and aortic coarctation repair. Further evaluation revealed presumptive functional asplenia as ultrasound showed potential splenic tissue located in the right upper quadrant. The patient was started on and discharged with amoxicillin prophylaxis due to increased risk of life-threatening encapsulated bacterial infections. He was discharged to home at 22 days of age.