Physician - Pediatric Cardiac and Vascular Surgery/Adult Congenital Heart Diseases

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Neonatal Thrombosis in Pediatric Patients: A Report of Two Cases

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This study presented the management of neonatal arterial thrombosis secondary to hypernatremia and breech presentation trauma. In the first case, an 18-day-old male born at 41 weeks gestation presented with ischemic left foot and absent peripheral pulses in both legs. Abdominal duplex ultrasonography revealed extensive aortic thrombosis from the infrarenal level to the lower extremity trifurcation arteries. An embolectomy was planned. Heparin infusion and hyperbaric oxygen therapy was administered to minimize the amputation level following the embolectomy. After consultation with the relevant departments, the patient was followed in the ward for autoamputation. In the second case, a male infant born at 39 weeks, presented with cyanosis in the left upper extremity, absent Moro reflex in the left arm, and abdominal swelling. Ultrasound showed no flow in the left brachial artery. A computed tomography scan revealed shoulder dislocation and total thrombosis of the left axillary artery. An embolectomy and debridement were performed to prevent further tissue loss, followed by heparin infusion and hyperbaric oxygen therapy. A below-elbow amputation was performed. Collagen wound dressing and skin grafting were applied for wound healing, and the patient was discharged after graft epithelialization. Neonatal arterial thrombosis poses a high risk of severe complications, permanent tissue damage, and mortality. Key causes include malignant diseases, autoimmune conditions, perinatal asphyxia, trauma, and dehydration. Rapid medical and surgical intervention is essential to prevent long-term outcomes.

Keywords: Arterial thrombosis, embolectomy, neonatal coagulopathy, pediatric patient.

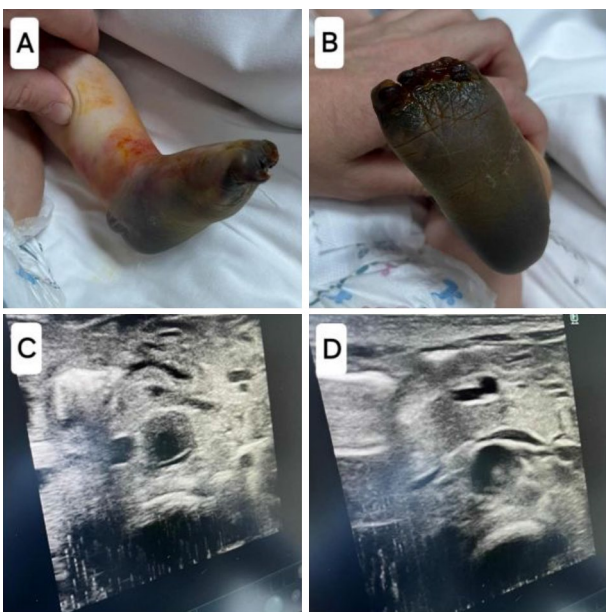

Figure 1. (A, B) The left lower extremity of the first patient upon admission to our clinic. (C, D) Duplex ultrasonography showing the persistence of a thrombus in the aorta.

Figure 2. (A) The left upper extremity of the second patient upon the admission to our clinic. (B) Debridement of necrotic tissues (C) A below-elbow amputation (D) Skin graft.