

Right Subclavian Artery Injury Secondary to Blunt Trauma Successfully Treated in a Patient with Situs Inversus Totalis

Daniel Corradi Carregal^{1*}, Paloma Maciel Araujo Rabelo¹, Maria Teresa Prata Amaral², Francisco De Paula Alves Souza Junior¹ and Fernando De Assis Figueiredo Junior¹

¹Hospital Público Regional de Betim Osvaldo Rezende Franco (HRPB), Betim- MG, Brazil

²Faculdade de Medicina de Barbacena (FAME/FUNJOB), Betim- MG, Brazil.

Published April 27, 2022

ABSTRACT

Introduction: Subclavian artery injury secondary to blunt trauma is rare. Most patients with blunt trauma that affects the major vessels die before reaching the hospital due to trauma kinematics. Appropriate intervention requires immediate identification and proper surgical approach. The intraoperative diagnosis is more common due to the hemodynamic instability of most patients; however, conventional angiography and computed tomography (CT) angiography are also useful diagnostic modalities in stable patients to determine the location of the injury prior to surgery. We present a case of blunt trauma associated with situs inversus totalis which is a rare congenital condition characterized by complete transposition of the thoracic and abdominal viscera.

Case Report: A 22-year-old man was brought to our trauma center, victim of motorcycle collision, with an occlusive bandage on the right neck/thoracic region. Due to hemodynamic stability, CT scan conducted directly. The patient was treated with surgical exploration of the injury with a supraclavicular incision, osteotomy of the middle third of the clavicle, proximal, and distal control of the subclavian artery. There was no evidence of brachial plexus injury. Small laceration was identified in the right subclavian artery caused by a bone fragment of the clavicle fracture. We performed a debridement of the subclavian injury and primary suture with Prolene 5-0.

Conclusion: Treatment of the subclavian artery trauma requires solid anatomy for understanding the accurate localization of the arterial injury, when possible, prior to surgery to ensure the approach will be target effective with minimal time loss.

Keywords: Blunt trauma, Subclavian artery injury, Trauma outcomes, Vascular repair, Vascular surgery

Corresponding author: Daniel Corradi Carregal, Hospital Público Regional de Betim Osvaldo Rezende Franco (HRPB) Av. Edmeia Matos Lazzarotti, 3800 - Jardim Brasília, Betim - MG, Brazil, 32671-602, Tel: +5531998808611; E-mail: dccarregal@gmail.com

Citation: Carregal DC, Rabelo PMA, Amaral MTP, De Paula ASJr & De Assis FFJr. (2022) Right Subclavian Artery Injury Secondary to Blunt Trauma Successfully Treated in a Patient with Situs Inversus Totalis. J Cardiol Diagn Res, 4(S1): 01.

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