Images in cardio-thoracic surgery

Brachiocephalic artery to left innominate vein fistula following median sternotomy

Rajnish Duaraa,*, Puthuvassery Raman Suneelb, Thomas Koshyb, Kurur Sankaran Neelakandhana

a Department of Cardiovascular and Thoracic Surgery, Sree Chitra Thirunal Institute for Medical sciences and Technology, Thiruvananthapuram, Kerala 695011, India
b Department of Anaesthesiology, Sree Chitra Thirunal Institute for Medical sciences and Technology, Thiruvananthapuram, Kerala 695011, India

Received 17 March 2005; received in revised form 2 May 2005; accepted 3 May 2005

Keywords: Brachiocephalic artery; Innominate vein; Fistula; Sternotomy

Nineteen-year-old girl operated for ostium secundum ASD sustained injury to the left innominate vein during sternotomy, and was repaired immediately. Pulse Doppler (Fig. 1) revealed continuous flow across the fistula and DSA (Fig. 2) showed flow to the left innominate vein into the superior vena cava. Fistula successfully repaired on 10th postoperative day.

Fig. 1. Pulse Doppler showing communication between brachiocephalic artery and left innominate vein with continuous flow across the fistulous tract.
Fig. 2. Digital Subtraction Angiogram showing injection to the brachiocephalic artery and instant filling of the left innominate vein and subsequently superior vena cava.