

during angiography and intraaortic balloon pump (IABP) was placed, followed by 100 mg tissue plasminogen activator infusion in the intensive care unit. The IABP was discontinued on the 5th day of admission. On the 7th day, coronary angiogram revealed the persistence of the dissection at proximal LAD and mid portion of Cx with TIMI III flow in both arteries (Fig. 2). Multislice computed tomography revealed chronic intimal dissection arising from LMCA ostium and traversing through proximal LAD and Cx arteries with thrombosis and its regression into the false lumen (Fig. 3, 4). She was discharged with medical therapy.

Although aggressive medical therapy including thrombolytics is not routinely used in treatment of spontaneous coronary artery dissections, it may be life saving in the selected patients such as our case.

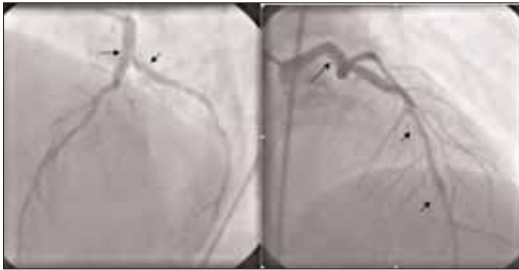


Figure 2. Coronary angiography view of persistent dissection in the proximal LAD and in the mid portion of Cx 7 days after the aggressive medical treatment including thrombolytics

Cx - circumflex coronary artery, LAD - left anterior descending artery

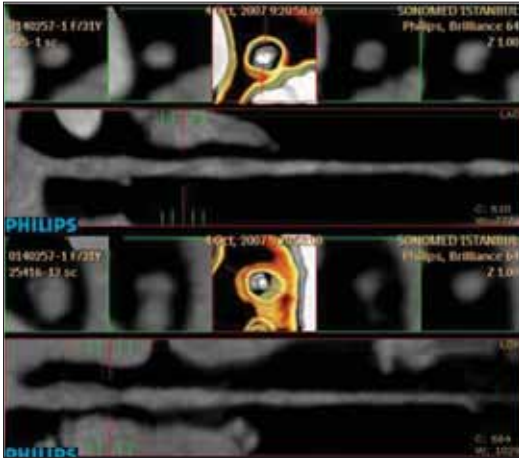


Figure 3. MSCT image consistent with intimal dissection and its false lumen arising from LMCA ostium and traversing through proximal LAD and Cx coronary arteries

Cx-circumflex coronary artery, LAD- left anterior descending artery, LMCA-left main coronary artery, MSCT-multislice computed tomography

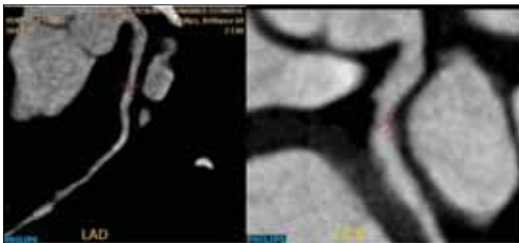


Figure 4. MSCT image of the coronary dissections of LAD and Cx

Cx - circumflex coronary artery, LAD - left anterior descending artery, MSCT - multislice computed tomography

Tansu Karaahmet, Kürşat Tigen, Emre Gürel, Cihan Çevik¹, Bülent Mutlu, Yelda Başaran
Department of Cardiology, Kartal Koşuyolu Yüksek İhtisas Education and Research Hospital İstanbul
¹Texas Technical University Health Sciences Center, Lubbock, Texas, USA

Address for Correspondence/Yazışma Adresi: Emre Gürel, MD,
Tervuursestraat 117 / 12, B-3000, Leuven, Belgium
Phone: +32 475737822 Fax: +32 16343467
E-mail: emregurelctf@yahoo.com

Giant aneurysmal dilation of a native pericardial patch used for reconstruction of the right ventricular outflow tract

Sağ ventriküler çıkım yolunun yapılandırılması amacıyla kullanılan nativ perikardiyal yamada gelişen dev anevrizmal genişleme

A 3-year-old girl had undergone a total corrective surgery for tetralogy of Fallot four months ago at our institution. Although she didn't experience any ongoing complaints. Routine postoperative follow-up investigations revealed a progressing large aneurysm of the autologous pericardial patch. That is why, she was referred to our institution for reoperation due to large aneurysm of the autologous pericardial patch prepared with glutaraldehyde (10 minutes in 0.6% concentration) in transannular position. Chest X-ray showed a large mediastinum due to aneurysm (Fig. 1). Echocardiography demonstrated aneurysmal dilation of the native pericardial patch. Cardiac catheterization and angiography revealed moderate pulmonary insufficiency and a large aneurysmal dilation of the pericardial patch in our patient (Fig. 2). Reoperation was indicated because of progressive distention of the aneurysm. For reconstruction of the right ventricular outflow tract (RVOT), the pericardial patch was excised, and the right ventricular outflow tract (RVOT) was reconstructed using an expanded polytetrafluoroethylene patch (IMPRA e-PTFE Cardiovascular Patch 0.6mm, 50P7506) (Fig. 3 and 4). After the repair, right ventricular pressures were 18/3mmHg. Postoperatively on the discharge day and after 3 months echocardiographic investigations were normal.



Figure 1. View of very large mediastinum due to aneurysm on chest X-ray



Figure 2. View of large aneurysmal dilation of the pericardial patch on cardiac catheterization

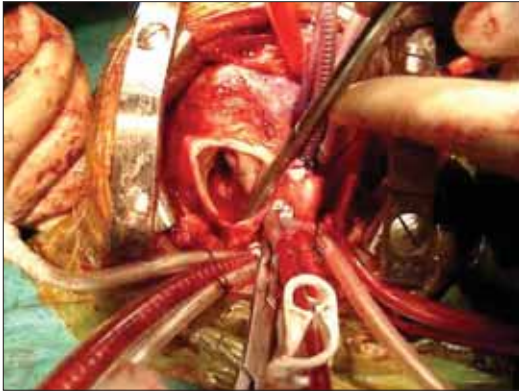


Figure 3. This image shows the excision of the pericardial patch used in first operation



Figure 4. View of right ventricular outflow tract reconstruction using an e-PTFE patch

Autologous pericardium is resilient, strong, and readily available and has expansive potential that makes it an ideal patch material. Pericardium patches are commonly used for the repair of congenital heart diseases. Aneurysmal dilation is a complication specific to the use of pericardial patches. Preparation of the pericardium with glutaraldehyde is considered to avoid this risk. Indications for late reoperations after total correction of tetralogy of Fallot include aneurysm of the pericardial RVOT patch in 4.5% of patients. When re-reconstruction of the RVOT is necessary because of the pericardial patch aneurysm, reoperation is associated with a low early mortality and good long-term results.

Ali Gürbüz, Banu Lafçı, Ufuk Yetkin, Timur Meşe¹, Vedide Tavlı¹
Department of Cardiovascular Surgery, İzmir Atatürk Training and Research Hospital, İzmir
¹Clinic of Pediatric Cardiology, Dr. Behçet Uz Children's Hospital, İzmir, Turkey

Address for Correspondence/Yazışma Adresi: Dr. Ufuk Yetkin,
İzmir Atatürk Training and Research Hospital, Cardiovascular Surgery,
İzmir, Turkey Phone: +90 232 463 00 61 Fax: +90 232 243 48 48
Gsm: +90 505 312 49 06 E-mail: ufuk_yetkin@yahoo.fr