Demonstration of double aortic arch with multislice computed tomography

Çift aortik arkı çok kesitli bilgisayarlı tomografi ile gösterimi

A 67-year-old male patient was diagnosed with larynx cancer. He had no cardiovascular complaints. Physical examination and electrocardiography were normal. Prior to laryngeal surgery 16-slice computed tomography of the thorax was performed for possible metastasis. The presence of double aortic arch was detected. (Fig. 1-2).

Double aortic arch is the most encountered vascular ring abnormality. It completely encircles the trachea and esophagus. Aortic arch anomalies that form a vascular ring can compress the trachea and esophagus. It is usually seen as an isolated anomaly. The patients mostly had respiratory and feeding complaints. The anomaly could be missed with transthoracic echocardiography. Besides computed tomography, magnetic resonance imaging is an important diagnostic tool in identifying anomalies of the aortic arch and its branches, and can be considered the imaging technique of choice when planning surgical management, especially when there are associated cardiac anomalies.

Spontaneous dissection of the left main coronary artery regressed with thrombolytic therapy: evaluation with multislice computed tomography angiography

Trombolitik tedavi ile gerileyen bir spontan sol ana koroner arter disseksiyonu: Çok kesitli bilgisayarlı tomografi anjiyografi ile değerlendirilmesi

Thirty-one year-old female with no coronary artery disease history was admitted for recent onset chest pain. She was a smoker. She denied other atherosclerotic risk factors, illicit drug use, connective tissue disorder, or recent trauma. Electrocardiogram revealed ST-segment elevation in leads V1-6. Her blood pressure was 110/75 mmHg and lungs were clear to auscultation. She was transferred to catheterization laboratory. Intravenous heparin (5000 IU), 300 mg aspirin and 600 mg clopidogrel were given before angiography. Coronary angiography revealed a linear image suggesting coronary dissection, originating from left main coronary artery (LMCA), and involving left anterior descending (LAD) and circumflex (Cx) coronary arteries (Fig. 1). The coronary flow was completely obstructed after the mid-segment of LAD. There was TIMI II flow in Cx and the right coronary artery (RCA) was normal. Percutaneous coronary intervention was not performed because of the diffuse nature of the dissection. She developed hypotension.
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.

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

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 (IMPIRA 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.