

## CASE IMAGE

## Successful endovascular treatment of a giant left subclavian artery pseudoaneurysm causing severe dyspnea

### *Ciddi dispneye neden olan dev sol subklavyen arter psödoanevrizmasının başarılı endovasküler tedavisi*

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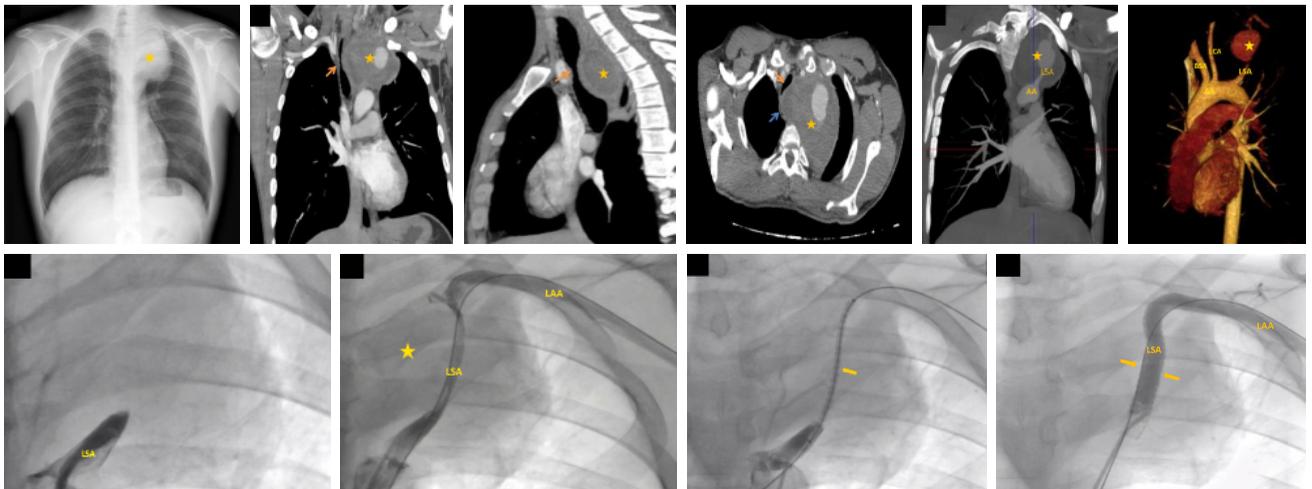
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A 26-year-old male patient presented to the emergency unit with the complaints of difficulty in breathing, weakness in the left arm, and worsening dysphagia in the previous 6 months. The patient had no known rheumatological disorder, trauma, or intervention in his medical history. During the physical examination, a pulsatile mass (diameter: 9 cm) was noticed in patient's left neck above the clavicle. Pulse could be detected in the left radial artery. A radiological examination of the thorax showed a newly identified radio-opacity in the left apical region of the chest (Fig. A). A contrast-enhanced computed tomography (CT) examination of the chest displayed a pseudoaneurysm (size: 96x89mm) in the left subclavian artery, which was causing compression of the esophagus and the trachea (Fig. B-F). Following these examinations, the patient was referred to the catheterization unit. A diagnostic angiography of the left subclavian artery performed through the right femoral artery revealed a thrombosed and stenotic lesion (100%) in the proximal segment of the left subclavian artery (Fig. G, Video 1\*). After the insertion of a 6-F Judkins Right 4 diagnostic catheter (Boston Scientific Corp., Marlborough, MA, USA) in the left subclavian ostium and accessing the left brachial artery with a 0.014-inch guide wire (PT2; Boston Scientific Corp., Marlborough, MA, USA), the thrombus was successfully aspirated with an aspiration catheter (ASAP, Merit Medical Systems, Inc., South Jordan, UT, USA) (Fig. H and Video 2\*). An 8x120-mm covered stent (Advanta V12, Atrium

Medical Corp., Hudson, NH, USA) was implanted successfully (Figs. I, J and Videos 3, 4\*). The patient tolerated the procedure well. After the percutaneous intervention, the patient was monitored in the medical unit and a consultation was held with the rheumatology department. The rheumatological evaluation did not reveal any finding of vasculitis or other rheumatological disorder. The patient recovered without any complication and was discharged after a week. During the follow-up control, which was carried out 15 months later, Doppler ultrasonography demonstrated an excellent result with no residual pseudoaneurysm. Arterial pseudoaneurysm of the subclavian artery is usually related to iatrogenic causes; spontaneous subclavian pseudoaneurysm is a rare clinical condition. Symptoms of pseudoaneurysm include a pulsatile mass, thromboembolic complications, and pressure-related symptoms (trachea, esophagus). Doppler ultrasonography, contrast-enhanced CT angiography, and conventional angiography are useful diagnostic imaging tools. Surgical or endovascular interventions are the main treatment options for a pseudoaneurysm. This report is a description of a challenging case of a large pseudoaneurysm in the left subclavian artery.



**Figures–** (A) Chest X-ray film shows a large mass in the upper left hemithorax (yellow star); (B-D) Contrast-enhanced computed tomography (CT) scan in planes horizontal, sagittal, and coronal reveal a pseudoaneurysm of the left subclavian artery (yellow star) and compressing the trachea and esophagus (yellow and blue arrowhead); (E) Contrast-enhanced CT scan in coronal plane shows a pseudoaneurysm of the left subclavian artery (yellow star) and a chronic thrombus of the false lumen in the left subclavian artery; (F) A 3D reconstruction of computer-assisted tomography displays the aneurysm of the left subclavian artery (yellow star). (G) Conventional angiography of the left subclavian artery shows a thrombosed stenotic lesion in the proximal left subclavian artery; (H) Conventional angiography of the left subclavian artery before the covered stent implantation indicating notable compression of the left subclavian artery by the pseudoaneurysm (yellow star); (I) Scope view of the subclavian artery during the covered stent implantation (yellow arrow); (J) Conventional angiography shows a Thrombolysis in Myocardial Infarction flow score of 3 in the left subclavian artery after the successful covered stent implantation (yellow arrows).

AA: Aortic arch; BSA: Brachiocephalic artery; LAA: Left axillary artery; LCA: Left common carotid artery; LSA: Left subclavian artery.

\*Supplementary video files associated with this presentation can be found in the online version of the journal.