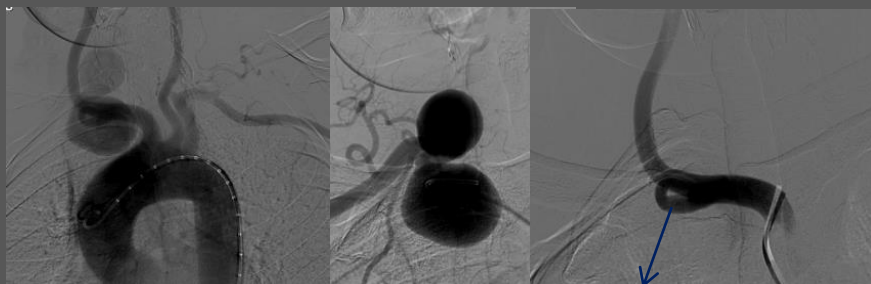


Thoracic Outlet Syndrome Complicated by Double Subclavian Artery Aneurysms – an Hybrid Approach

Ricardo Castro-Ferreira; Paulo Gonçalves Dias; Sérgio Moreira Sampaio; Dalila Rolim; José Fernando Teixeira

Clinical Case: 55 years-old female patient, with no prior medical conditions, was referred to vascular surgery clinic with symptoms of neurological TOS. The radial pulses were absent but the patient had no arterial complains. In the work-up angio-CT two consecutive SAA (39 and 42mm) divided by anterior scalenus muscle were diagnosed. An angiogram was performed:



15mm neck of healthy Subclavian Artery

Treatment

The aneurysms were excluded by covered stent angioplasty (Viabahn, Gore)



By Brachial access it was not possible to re-entry in Subclavian Artery

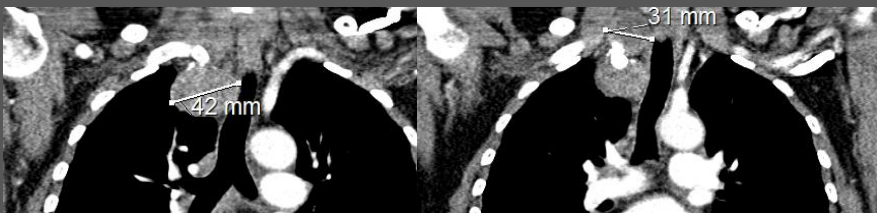
Femoral access with guide-wire snaring in the subclavian aneurism.

Endovascular aneurism exclusion with Viabahn

Subsequently the patient was submitted to anterior scalenectomy

Evolution

Patient remains asymptomatic 6 months after the treatment
Follow-up angio-CT confirmed SAA exclusion



Discussion

The term thoracic outlet syndrome was originally used in 1956 by RM Peet to designate compression of the neurovascular bundle at the thoracic outlet. Since its original description, a multitude of clinical entities was associated with TOS. SAA is a rare but potential dangerous complication of TOS. Whereas historically SAA have been managed by open surgery, the novel endovascular methods offer an elegant and safer approach to this condition. Although first rib resection is emerging as the regular method of thoracic outlet decompression, this particular case imaging was highly suggestive of scalenus muscle compression. This case exemplifies how endovascular and open approaches can elegantly work together with remarkable results. To the best of our knowledge, this is the first description of a double subclavian artery aneurysm in the context of TOS.