

## CONTINUING MEDICAL EDUCATION ΣΥΝΕΧΙΖΟΜΕΝΗ ΙΑΤΡΙΚΗ ΕΚΠΑΙΔΕΥΣΗ

### Vascular Diseases Quiz – Case 18

A 75-year-old female patient with medical history of coronary artery disease –she had undergone CABG–, hypertension and dyslipidemia, was referred to an ophthalmologist due to blurred vision. Ophthalmological examination revealed no eye pathology and patient was referred to a vascular surgeon. The patient underwent a colour Doppler ultrasound examination that revealed 40% stenosis of both internal carotid arteries. Since those findings could not interpret patient's symptoms, a digital subtraction arteriography was subsequently performed (fig 1).

Quiz 1: What is the diagnosis?

#### Comment

Patients who present with neurologic symptoms or symptoms arising from the upper extremity should always be examined for disease of aortic arch branches. The latter are the innominate, common carotid and subclavian artery. Atherosclerosis is the most common underlying cause of occlusive disease at those arteries, but other causes such as Takayasu arteritis should also be considered. Disease of the aortic arch branches is usually manifested by cerebral or upper extremity thromboembolic events but global hypoperfusion symptoms or vertebrobasilar insufficiency may even present. Digital subtraction arteriography is the diagnostic method of choice. In the past, treatment included trans-sternal approach and reconstruction either with revascularization using a by-pass graft or transposition of the diseased artery. Currently, the trans-sternal approach is saved mostly for multi-vessel disease. Isolated proximal lesions



Figure 1

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S. Lioudaki,  
E. Psathas,  
M. Doulaptsis,  
A. Katsargyris,  
C. Klonaris

Second Department of Propedeutic  
Surgery, Medical School, University of  
Athens, "Laiko" General Hospital, Athens,  
Greece

are treated with short-segment extra-anatomical by-passes e.g. carotid-subclavian by-pass grafting. Endovascular repair of such lesions has been developed during the last years yielding satisfying results. The choice of the appropriate method of treatment is based on the location and morphology of the lesion and the associated comorbidities of the patient.

In the aforementioned case, the occlusion of the left common carotid artery was successfully treated with a short subclavian-carotid by-pass using an ePTFE 7 mm graft (fig 2) through a supraclavicular incision. The patient had an uneventful postoperative course and was discharged on 3 days postoperatively.

In conclusion, neurologic symptoms that cannot be attributed to significant carotid bifurcation stenosis require further examination for more proximal disease.

Corresponding author:

C. Klonaris, First Department of Surgery, Vascular Division, Medical School, University of Athens, "Laiko" General Hospital, Athens, Greece  
e-mail: chris\_klonaris@yahoo.com

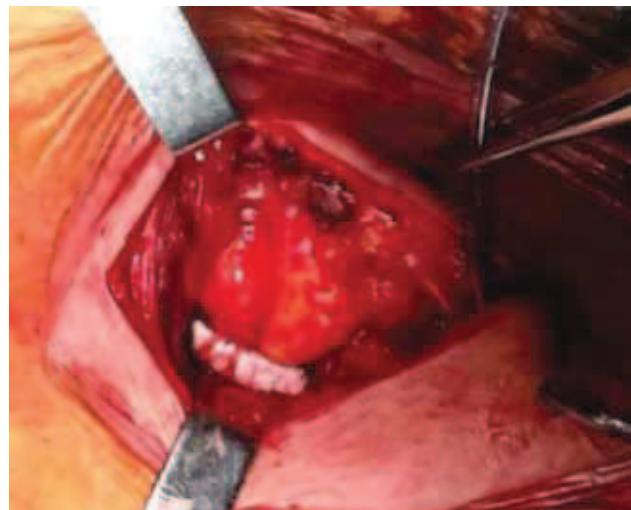


Figure 2

**Diagnosis:** Proximal occlusion of the left common carotid artery