Right subclavian artery stenting for bilateral severe claudication

A. Kerzmann, J.O. Defraigne

Dept. of Cardiovascular and Thoracic Surgery, CHU Sart-Tilman, Liège, Belgium

No conflict of interest

Introduction

Occlusive disease of the subclavian artery is most of the time asymptomatic and then do not need any endovascular or surgical treatment. Usually symptoms are ischemia of the arm (from arm's weakness by exercise to finger's ulceration) and vertebrobasilar insufficiency. It can also induce angina pectoris by patients with internal mammary artery coronary bypass and lower extremity ischemia by patients with axillofemoral bypass. The most frequent etiology is atherosclerosis.

We report one case of right subclavian artery stenosis treated by stenting. The patient had axillobifemoral bypass located on the right side and left internal carotid occlusion. He complained of severe claudication of both legs.

Case report

History

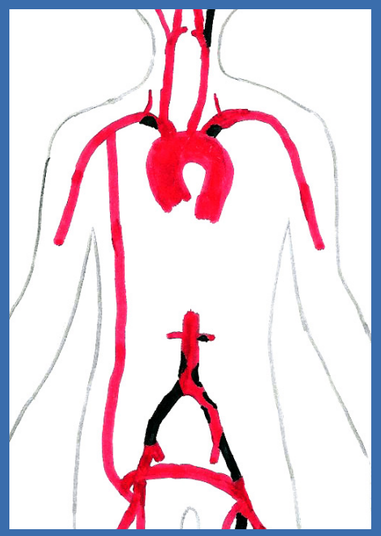
- man, 74 years old
- arterial hypertension, dyslipidemia, former smoker
- chronic obstructive pulmonary disease, ischemic and dilated cardiomyopathy, implantable defibrillator, chronic occlusion of the left internal carotid, left femoropopliteal venous bypass below the knee 11 years before, axillobifemoral bypass emerging from the right axillary artery 5 years before
- category 3 Rutherford PAD
- ABI > 1,4
- blood pressure at the right arm 80/60 mmHg, blood pressure at the left arm 100/70 mmHg

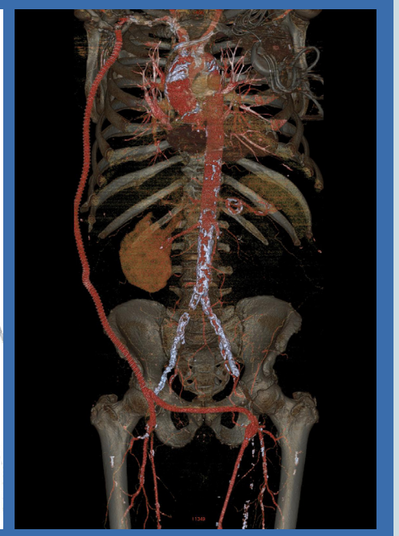
Thoraco-abdominal CT angiography

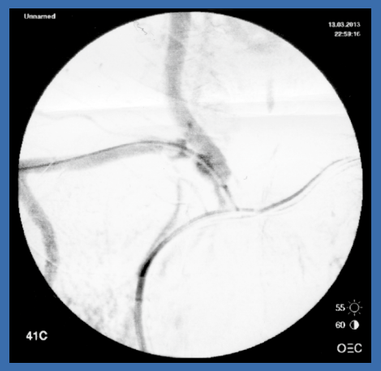
- severe stenosis of both subclavian arteries

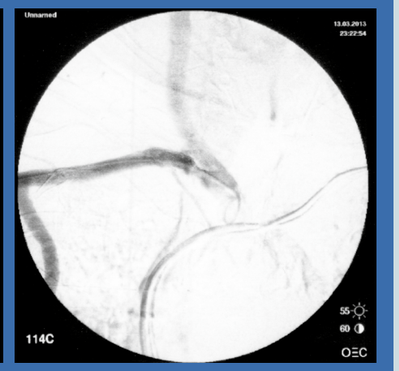
Operation

- local anesthesia
- open access of the right humeral artery
- 5000 IU heparin
- 8 French introducer sheath
- 0,035 guide wire
- pigtail catheter in the brachiocephalic trunk to perform angiography
- predilatation with balloon Bard Rival® 5mm-2cm
- balloon expandable stent Bard Valeo® 10mm-26mm
- residual stenosis at the ostium of the right subclavian artery dilated with balloon 10mm-26mm
- no operative complication









Follow-up

- category 1 Rutherford PAD after 18 months follow-up
- blood pressure at the right arm 140/80 mmHg, blood pressure at the left arm 110/70 mmHg

Conclusion

Stenting of the right subclavian artery was safe and efficient by patient with bilateral severe claudication of the lower extremities, axillobifemoral bypass located on the right side and controlateral internal carotid occlusion. Neither the bypass, nor the right common carotid artery were injured. The mid term follow-up didn't show recurrence of the severe claudication.

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