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Mycotic Popliteal Embolic Pseudoaneurysm Reveals an Endocarditis: Case Report

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Abstract: Peripheral arterial embolism can result from an acute bacterial or fungal endocarditis. Critical leg ischemia and aneurysm are the main symptoms. We report the case of a patient addressed for claudication associated with a painful tumor of the left popliteal artery. All these signs were confirmed by the clinical examination. The clinical and biological inflammatory syndrome was present and ultrasound found a pseudoanerysm which was confirmed by the computer tomography. Echocardigraphy found valvular vegetations. She underwent resection of the pseudoaneurysm and closure of the neck of the pseudoaneurysm. Antibiotherapy was done during 6 weeks. She is waiting for valve replacement. Mycotic aneurysms from the heart is a real complication of endocarditis and it's traitement is good managed in our department.
Keywords: Embolism, vegetation, endocarditis, aneurysm

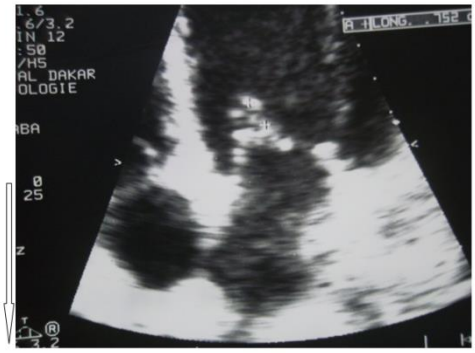
INTRODUCTION

Peripheral arterial emblolism can be the consequence of fragmented vegetations migration from the heart valves [1]. Mycotic pseudoaneurysm is usually the main lesion, it's first description was made by William osler in 1885 [2]. We report the case of patient with an infected pseudoaneurysm of the popliteal artery.

CASE REPORT

An 25 old years female was admited to our departement for intermittent claudication and a painful pseudoaneurysm of the popliteal artery which was diagnosed 7 days after parturition. At the first examen, she had 39°C of temperature, a glossy mass with arterial pulsations in the left popliteal area. It was associated with a mild leg ischemia. Arterial Doppler Ultrasound showed a pseudoaneurysm of the popliteal artery with much thrombisis and it was ruptured and encapsulated in the gastrocnemious muscle. The CT scanner showed a pseudoaneurysm of the popliteal artery with 131 mm in diameter and 5 cm of thrombosis. The run off was good with two leg vessels (figure 1). Inflammatory markers was high with C-Reactive protein: 50UI/L, and white blood cells count : 15570 UL/L. The echocardiography showed an severe aortic valve regurgitation and a moderate mitral valve regurgitation with endocarditis vegetations in the anterior part of the mitral valve. The ejection fraction was reduce 50% (figure 2). She was sent at the operating room and she underwent resection of the pseudoaneurysm, the pseudoaneurysm neck of 5 mm width was closed with 5/0 polypropylène. Culture wall of the pseudoaneurysm was negative, however we gave antibiotics with amoxicillin and clavulanic acid during 6 weeks after surgery, associeted with a heart failure traitememt. She had a wound infection whith good outcome after wound management. At 2 months follow up, she is wating for replacement of the aortic and mitral valves.

Fig–1: Pseudoaneurysm of poplital artery in CT scanner



Fig–2 : vegetations in the anterior part of the mitral valve

DISCUSSION

Endocarditis is common in patient with heart valves, congenital heart disease or in person with drug addicts [3]. The most infectious agents are Streptococcus viridans (6O%), Staphylococcus aureus (20%), enterococcus (5-l0%), gram-negative bacilli and fungi [4]. Mycotic embolisms in the peripheral vessels can be the first sign of endocarditis or can be shown during trraitement with antibiotics [5]. It's the case of our patiente. The commonest lesion is mycotic aneurysm. It result from a an infectious contamination of the arterial wall which began to the lumen of the vessel or from the vasa vasorum. It result a destruction of the vessel wall and thrombosis [6]. Signs can be neuropathy due to compression of nreves, signs of critical or non critical leg ischemia [3,7] or non typical signs [9]. A vegetation in mitral or aortic valve larger than 10 mm predict an embolisation in the peripheral vessels [6]. Dukes criteria are very importants for the classification of endocarditis but the clinic examination is important also [6]. The surgical management of peripheral arterial pseudoaneurysm depends on the finded lesions, with resection of the pseuaneurysm and direct close of the neck of the pseudoaneurysm or with autologue tissus. An extra anatomic bypass graft can be done [9,10]; our patient underwent a resection followed by the closure of the neck of the pseudoaneurysm. We made a traitement with antibiotics because of vegetations associeted with the heart valve disease and the inflammatory syndrome. Endocarditis with negative culture can be found in infected patient with Brucella spp, coxiella burnetii, Bartonella spp, Legionella spp, Mycoplasma spp, Tropheryma Whipplei [6]. Heart valve surgery is recommended after or during the optimal antibiotic traitement [6]. Our patient is waiting for aortic and mitral valve replacement in our center.

CONCLUSION

Mycotic arterial embolism in particular mycotic pseudoaneurysm is a common complication of bacterial or fungi endocarditis. It'traitement remains resection and direct closure of the neck of the pseudoaneurysm or with autologue tissus. An extra anatomic bypass graft can be done if damage tissus is extensive. Survival is improved with association of antibiotics and heart valve surgery in particular aortic or mitral valve replacement.

DISCLOSURES

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