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Clinical Case

Surgical Management of an Unusual Case of Right Atrial Endocarditis

Traitement chirurgical d'un cas inhabituel d'endocardite atriale droite

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ABSTRACT

Right cardiac cavities infective endocarditis are often encoutered in drug abuse patients, with potential risk to evoluate to pulmonary emboli. Usually, medical treatment gives good results. In certain cases, surgical treatment may be necessary.
We report a case of right atrial infective endocarditis in old female patient, with moderate tricuspid valve regurgitation, and beneficiated of vegetectomy and right atrial wall repair with autologus pericardium.

RÉSUMÉ

Les endocardites infectieuses du cœur droit affectent habituellement les toxicomanes IV et ont un risque d'évolution vers l'embolie pulmonaire. Dans la plupart des cas, le traitement médical est suffisant. Mais dans certains cas, il faut recourir à la chirurgie.
Nous reportons un cas d'endocardite infectieuse du cœur droit chez une femme du troisième âge, avec régurgitation tricuspide. Elle a été traitée par végectomie et reconstruction de la paroi atriale par membrane péricardique autologue.

INTRODUCTION

Cardiac valvar infective endocarditis is more frequent than chambers infective endocarditis [1]. Isolated tricuspid valve regurgitation secondary to infective endocarditis is most commonly associated with pacemaker infection or intravenous drug abuse [2]. There are no well-defined indications for surgical intervention.
The purpose of this study was to present the management of right atrial infective endocarditis extended to tricuspid valve, which has been treated by vegetectomy and free right atrial wall reconstruction with autologus pericardium.

CASE REPORT

A 75-years-old female, without a history of cardiac surgery and a drug use, has been admitted to surgical cardiovascular department of International University Hospital of Cheihk Zaid in Rabat (Morocco). She had a history of fewer, cough, dyspnea, and palpitation few days ago before her admission. Her physical exam showed, 39° C of temperature, heart rate of 89 bpm, normal cardiac rhythm, systolic murmur at sub xiphoid area. There were no septic emboli to the lungs.
Transthoracic echocardiography (TTE) demonstrated a pedicular mass along free wall of right atrial till tricuspid valve, with moderate tricuspid regurgitation, preserved right ventricular function, no evidence of left sided valvular lesions or thickening.
Blood cultures isolate Methicillin-sensitive Staphylococcus aureus. All biological exams were normal. Optimal antibiotherapy was conduct during 4 weeks. Despite this treatment, vegetation length continuous to grow.
A few days later, the patient underwent a successful tricuspid valve repair with excision of a bulky mobile right atrial free wall vegetation with an autologous pericardial patch (Images 1,2), with a risk of lungs embolization. Vegetation measured about 5 cm of length (Image 3).
The patient recovered without complications and was discharged home on a postoperative Day 10. Per infectious disease recommendations, she continued intravenous antibiotics for 2 weeks post surgery. She was

seen in an outpatient clinic 4 weeks after surgery and was doing well with no evidence of recurrent vegetation on echocardiogram.

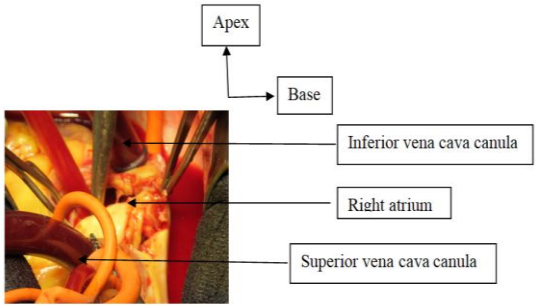

Image 1 : Per operative view of right atrial cavity

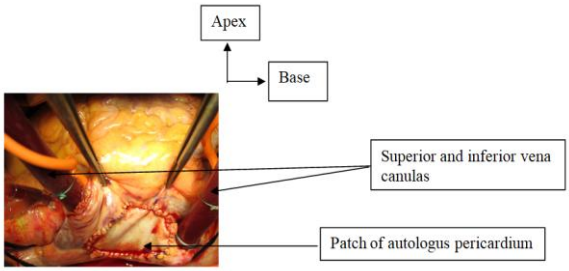

Image 2 : Per operative final view.

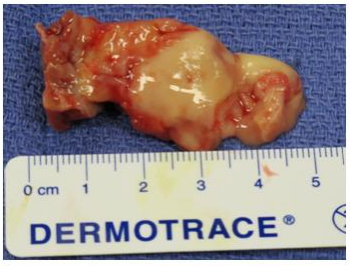

Image 3 : Vegetation

DISCUSSION

This case highlights an unusual case, with several aspects of meriting attention. The clinical feature was less intense. Blood cultures isolated Staphylococcus aureus, which was Methicillin-sensitive.

Timing of surgery in this setting of right atrial infective endocarditis is controversial. There is a trend towards earlier surgical intervention in these patients, with more recent data suggesting that this approach is safe and more effective in preventing further embolic events [3]. There are several reports on surgical outcomes [4]. But few comparing surgery with medical treatment alone. A recent six-year observational study of tricuspid valve endocarditis found surgical intervention to be associated with reduced long-term mortality [5].

Vegetation size > 1 cm is considered a surgical indication in left-sided endocarditis and generalized by some experts to apply to right-sided endocarditis [6]. It has been reported that early surgery allows for faster bacterial and vegetation clearance. However, studies have shown no difference in mortality with faster clearence or with vegetations > 1 cm compared to smaller vegetations []. It does appear vegetations > 2 cm may be associated with higher mortality or higher embolic risk.

It may be that very large vegetations are marker of disease severity but it is not established whether surgery changes outcomes in these patients. Severe tricuspid regurgitation is another proposed indication for surgery [7]. Some have argue the optimal timing of surgery is early in the disease to avoid worsening valve regurgitation.

CONCLUSION

Right atrial infective endocarditis is rare, often encountered in intravenous drug abuse patients. In many cases, medical treatment with antibiotic may solve this infection. In very rare situations, surgical intervention may be necessary to prevent complications despite medical treatment.

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