

Infective Endocarditis in Adult with Silent Patent Ductus Arteriosus

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ABSTRACT

The occurrence of an infectious endocarditis on a CAP remains a rare clinical presentation these days especially Adulthood. We report through this observation the management of an infectious endocarditis Complicating a CAP in a young woman 24 years old.

KEYWORDS: Infective Endocarditis , Silent Persistent Ductus Arteriosus

I. INTRODUCTION

The incidence of a silent persistent ductus arteriosus (PDA) in adults is estimated at 0.1% to 0.2% with a sex ratio of 2 to 3 women for 1 man. [1]

Infective endocarditis remains a very rare diagnostic circumstance and can be the first presentation of a silent patent ductus arteriosus. This case reports an infectious endocarditis complicating a PDA in a 24 years old woman.

II. CASE REPORT

This is a case of a 24-year-old woman with no history of heart disease who was admitted to the hospital with a chronic fever, fatigue, and weight loss. Cardiac auscultation revealed a continuous murmur, located at the upper left sternal border.

Transthoracic echocardiography was performed and showed a 3 mm restrictive PDA (Figure 1 and 2) with accelerated left to right flow of 4.7m / sec and two very mobile vegetations, the largest one (24mm of size) is attached to the pulmonary artery side of the ductus and the other one (12mm of size) is located in the descending aorta . The isthmus of the aorta is aneurysmal .The heart chambers were not dilated with conserved systolic function.

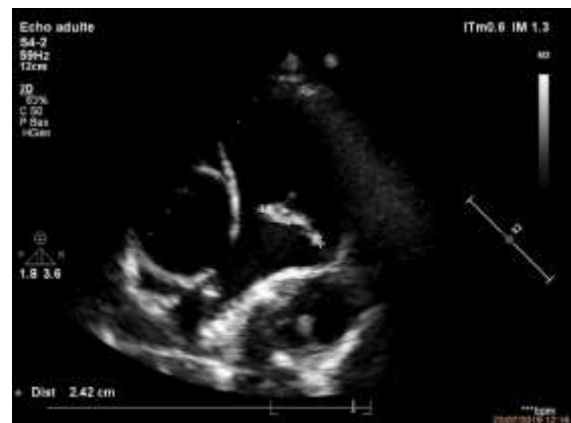


Figure 1. Parasternal short-axis view centered on the pulmonary artery, its branches and the arterial canal highlighting vegetations in the trunk of the pulmonary artery.



Figure 2. Suprasternal view in color doppler mode showing the shunt through the PDA

Two blood cultures were positive for *Streptococcus viridans*. The patient was treated with intravenous

ceftriaxone and gentamycin. The course of the patient was marked by the apparition of an acute dyspnea and chest pain, both secondary to pulmonary embolism, probably of septic origin, confirmed by means of CT scan.

She then underwent surgery, performed from left posterolateral approach, consisting of resection of the aorta, exclusion of false aneurysms and the ductus was dissected, and ligated. The pulmonary artery has not been dissected due to rhythm disorders poorly tolerated during its clamping (Figure 3).

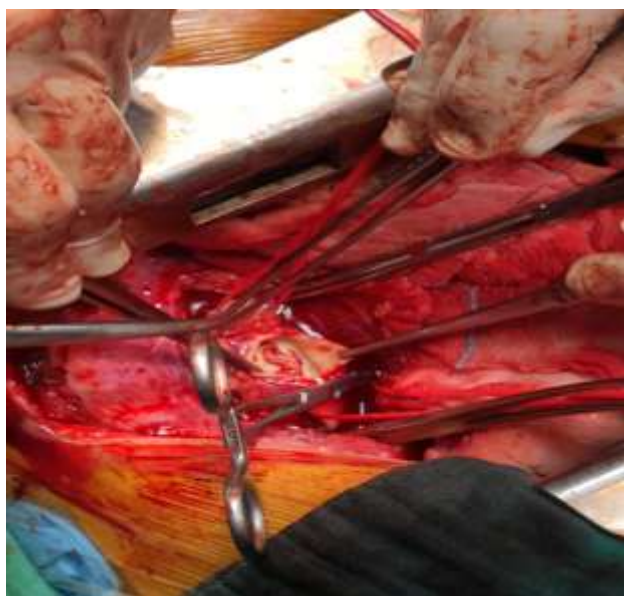


Figure 3. Operative view of the vegetations through the aortic arteriotomy

The post-operative TTE showed no shunt flow and the respected vegetation in pulmonary artery. The histopathological study found sterile vegetation. The postoperative course was satisfactory, and the patient was discharged in stable condition.

III. DISCUSSION

Patent ductus arteriosus is the persistent communication between the proximal left PA and the descending aorta just distal to the left subclavian artery.

The most common complications associated with PDA are left heart failure and infective endocarditis.[2].. The latter remains a fatal complication in adults because it's often late diagnosed [3]

The echocardiographic detection of vegetation is usually in the pulmonary artery near the end of the ductus, as was present in our case. TEE appears to be more sensitive and a superior diagnostic tool for the detection of PDA and vegetations [3] .

In adults, the treatment of symptomatic PDA is essentially based on percutaneous closure. However, patients with PDA and infective endocarditis should have a surgery, because the infective endarteritis associated with congenital heart disease can cause severe complications such as cardiac failure, organ failure due to septic emboli, fatal arrhythmias and neurological problems such as a stroke or mycotic aneurysm [4].

In our case, the pulmonary artery vegetation could not be resected because of the occurrence of rhythm disorder, so only a dissection and ligation of the ductus was performed.

IV. CONCLUSION

Silent PDAs do not have hemodynamic consequences, and, thus, the only risk is the occurring of bacterial endocarditis. Screening and prevention of complications remains the best approach.

V. REFERENCES

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2. (To Close or Not to Close-The Very Small Patent Ductus Arteriosus).
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4. (To Close or Not to Close-The Very Small Patent Ductus Arteriosus/ Multiple Embolic Aortic Valve Endocarditis with Small Patent Ductus Arteriosus in Adult