Successful Complex Mitral Repair in Redo Patient with Repeated Cerebral Embolism and Nonbacterial Endocarditis

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INTRODUCTION

A case with recurrent minor and major cerebral embolism and filamentous mobile images attached to the mitral ring, despite of any other criteria for endocarditis, in a previous complex mitral valve repair operated patient, is presented.

METHODS AND MATERIALS

A 44 years old male in 2nd NYHA class, underwent a complex mitral repair in 2006 for Barlow disease with quadrangular resection, ring annuloplasty and neo chordae. Preoperative Echo showed bileaflet mitral prolapse (A2P2, A2P1), posterior commissure prolapse and dilated annulus, leading to severe mitral regurgitation. Postoperative Echo and FUP Echo showed good result of MV repair with trivial regurgitation and long coaptation (approx. 10mm length).

Five years later he suffered repeated minor transitory cerebral ischemic attacks (2010, 2011). ECG Holter exam and anamnesis were negative for atrial fibrillation or fever. The carotid arteries were normal too at vascular Echo exam. Transesophageal echo, revealed a thin, mobile and filamentous image (approx. 23x3mm – Fig 1) attached to the posterior mitral ring, highly suggestive for vegetation. The patient was admitted in Infectious Disease Department, but all the laboratory tests have been negative for infective endocarditis. A probable diagnosis of nonbacterial thrombotic endocarditis was done and oral anticoagulant with warfarin was started.

Despite of warfarin therapy, two years later the patient presented with left hemi syndrome, paresis and aphasia, having a good INR range. In this period of time the patient doesn’t repeat the transesophageal Echo control. The microbiological sets were again all negative.

SENSUOSS

Transesophageal Echo revealed much bigger filamentous mass (approx. 35x6mm – Fig 2, 3, 4), located at the same place, much more mobile and the surgical intervention was considered. Surgery confirmed the echo findings: large vegetation of approx. 35mm length, attached to the posterior mitral ring. Redo of mitral repair has been done: resection of vegetation, removal of mitral ring with reshaping and reconstruction of the native mitral annulus.

RESULTS

Good postoperative result with 8mm of coaptation length and trivial mitral regurgitation in postoperative Echo and long term F-up (Fig 5). The clinical result was also beneficial, with complete neurological recovery and no sign of new ischemic cerebral episodes. The patient remained since then in sinus rhythm.

CONCLUSIONS

Nonbacterial thrombotic endocarditis is a rare clinical entity and very challenging diagnosis, needing a close-fitting collaboration between all the members of the endocarditis team. Indication for surgery is debatable, but in the presence of quite large and mobile mass the risk of embolization has to be carefully assessed. Redo of mitral repair is always a challenge for the surgeon, particularly in endocarditis.

Our case highlighted that warfarin therapy is not always effective and a close echocardiographic monitoring of these patients is crucial for surgical decision.