

Combined MitraClip implantation and left atrial appendage occlusion using the Watchman device: A case series from a referral center

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Abstract

Introduction

Patients referred for percutaneous transcatheter mitral valve repair using the MitraClip® system frequently have atrial fibrillation, which imposes additional challenges due to the need for oral anticoagulation. Left atrial appendage occlusion is currently regarded as a non-inferior alternative to anticoagulation in patients with non-valvular atrial fibrillation and both high thromboembolic and bleeding risk. Considering that both MitraClip implantation and left atrial appendage occlusion are percutaneous techniques that require transseptal puncture, it is technically attractive to consider their concomitant use.

Objectives

We aim to evaluate the feasibility of a combined approach with MitraClip implantation and left atrial appendage occlusion in a single procedure.

Methods

We report the first case series regarding this issue, discussing the specific advantages, pitfalls and technical aspects of combining these two procedures.

Results

Five patients underwent left atrial appendage occlusion with the Watchman® device followed by MitraClip implantation in the same procedure. All patients experienced significant reduction in mitral valve regurgitation of at least two grades, optimal occluder position, no associated complications and significant clinical improvement assessed by NYHA functional class (reduction of at least one functional class, with four patients in class I at one-month follow-up).

Conclusion

In selected patients rejected for surgical mitral valve repair, with atrial fibrillation and increased risk of bleeding and embolic events, a combined approach with MitraClip implantation and left atrial appendage occlusion in a single procedure is feasible, safe and effective.

Keywords:

Mitral regurgitation; MitraClip; Left atrial appendage occlusion; Watchman