



Poster session

Left Atrial Appendage (LAA) Exclusion in atrial fibrillation patients for mitral valve replacement

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Background:

Atrial fibrillation (AF) is a major risk factor for thromboembolic (TE) events in patients with mechanical mitral prosthesis (MMP). The left atrial appendage (LAA) is the major site of thrombus formation.

Objective:

To study if concomitant exclusion of LAA in mitral valve replacement surgery reduces the incidence of TE events in patients with AF having MMP.

Methods:

This was a retrospective study over a 12-year period from January 2004 to December 2016. comparative study between two groups of patients in AF proposed for mitral valve replacement (MVR) by mechanical prosthesis, one having been an exclusion of LAA (E) with 133 Patients and the other did not (no E) with 171 patients was carried out.

Results:

The mean age was 46.9 in the E group vs 43.6 in the non-E group. The two groups were comparable in terms of risk factors and comorbidity. The mean Euro SCORE was 4.2 in the E group vs 4.16 in the non-E group. The E group included more patients with a history of TE events (16.1% vs 9.9%) and having intra atrial thrombus in preoperative ultrasonography (35.4% vs 7%). Surgery consisted of an MVR by bi-leaflet mechanical prosthesis for all patients, associated with AVR or tricuspid annuloplasty in a 1/3 of patients (38.7% vs EA 32.3%), a CABG in 8 patients of non-E group, to endarterectomy of the ICA in 3 patients of the same group and surgical AF ablation in 5 patients of the E group. The exclusion of the LAA was carried out by external ligature. Early and late TE complications were lower in the E group with a significant difference between the two groups ($p = 0.001$). Post-operative cardiac morbidity was similar in both groups and depended on ventricular function and preoperative pulmonary pressures. Mortality was lower in the E group but there wasn't a significant difference ($p = 0.725$).

Conclusions:

Ligation of the left atrial appendage (LAA) during mitral valve replacement (MVR) surgery is a simple procedure which has low operative risk and is not expensive. It can reduce the risk of occurrence of thromboembolic events in combination with the anti-vitamin K.