ABSTRACTS - 28th EACTS

058 BETTER SINUS RHYTHM RESTORATION AND CONGESTIVE HEART FAILURE PROTECTION OF LEFT ATRIUM VOLUME REDUCTION IN A GIANT LEFT ATRIUM
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Objectives: There are several reports indicating that left atrium (LA) volume reduction improves sinus rhythm restoration rate after maze procedure in a giant LA. However, reports using circumferential LA resection as a method of LA volume reduction are rare, and there is no comparative study using this method.

Methods: Between 2000 and 2011, 134 patients with a giant LA (antero-posterior dimension ≥70 mm), who underwent maze operation during a mitral valve surgery, were retrospectively reviewed. Patients who underwent circumferential LA resection (group I, n=28) were compared with the patients without circumferential LA resection (group II, n=106). The average follow-up length was 65 months.

Results: Cardiac ischaemic and cardiopulmonary bypass time were longer in group I (P<0.01). In terms of hospital mortality and morbidities, there was no difference between the two groups. LA volume reduction was more significant in group I (57% reduction) than in group II (35% reduction). In group I, the rate of sinus rhythm restoration was 84.6%, 84.0% and 64.0% at 6 month, 1 year, and the last visit, respectively, compared with 53.6%, 51.8% and 30.5%, respectively, in group II. During the follow-up period, group II was more vulnerable to congestive heart failure and/or usage of high-dose diuretics (P=0.036).

Conclusion: Despite prolonged cardiac ischaemic and cardiopulmonary bypass time, patients with circumferential LA resection showed favourable results accompanied with significant LA volume reduction and better sinus rhythm restoration. Moreover, circumferential LA resection had a tendency to protect congestive heart failure during follow-up.