

P112. Does The Ross Procedure Show Immediately Postoperative Advantages To Stentless Bioprostheses In Elective Primary Aortic Valve Replacement?

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OBJECTIVES: This study was initiated to evaluate the impact of the Ross procedure in unselected aortic valve patients over the age of 50 years compared with stentless bioprostheses on the postoperative period.

METHODS: The study cohort from July 2005 till September 2008 included 111 patients (age between 50 and 70yrs). Seventy-nine patients received the Ross procedure (Ross group), whether thirty-two patients received either a bovine (n=16), porcine (n=13) or equine (n=3) stentless bioprosthesis (stentless group). The designation to surgical procedure accorded to patient's preferences. Patient characteristics, intraoperative data, co-morbidity, mortality and postoperative echocardiography were compared in both groups.

RESULTS: Although the age ranged between 50 and 70 years, the Ross group was younger compared to the stentless group, respectively 62±6yrs and 65±4yrs (p<0.006). There was no different in euroSCORE for both groups, 5.2±1.9 vs. 5.7±1.9 respectively (p<0.212). Other patient characteristics were similar. Intraoperative data showed significant longer bypass time in the Ross group (138±19min) regarding the stentless group (87±29min;p<0.001). Due to pulmonary valve fenestrations, intraoperative conversion to the stentless group became necessary in three patients. The stentless group showed significant more thrombocytopenia (p<0.001). Hospital mortality was lower in the Ross, 0.0% vs. 3.1% respectively (p=0.114). Maximum transvalvular pressure gradient was significantly lower in the Ross (6.9±3.3mmHg) versus the stentless group (18.9±7.5mmHg;p<0.001).

CONCLUSIONS: Thus, in spite of a longer bypass time, the postoperative evaluation showed a significant decrease of co-morbidity and superior hemodynamic behavior in patients after Ross procedure.