44 Early and Long-Term Outcomes of Re-Sternotomy Aortic Valve Replacement (AVR) With Previous Coronary Artery Bypass Grafts (CABG)

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Introduction: With the wider use of biological prosthetic valves and increasing life expectancy, the number of patients requiring redo surgery for aortic valve replacement (AVR) is increasing. This carries its own risks particularly in those with previous cardiac surgery - from graft injury and myocardial jeopardy. Transcatheter valve replacement provides a safer option for high-risk patients that do not require any additional cardiac surgery. This project aims to evaluate the early and long-term outcomes of redo-sternotomy AVR after previous CABG.

Method: Retrospective study of patients that underwent redo sternotomy AVR with (Group 1) or without (Group 2) concomitant cardiac procedure(s) from 2000–2019. Pre-operative, operative and post-operative data collected for each patient. Statistical analysis done with significance p-value <0.15.

Results: 178 patients included during this time-period (Group 1 = 90 and Group 2 = 88). Mean age of 75 years and EuroSCORE of 17. In hospital mortality was 7.8% with key contributing factors of heart failure (NYHA III-V), perioperative IABP insertion and cardiovascular injury - 12% of cases and most commonly effecting the left internal mammary artery (LIMA). Survival at 5 years in both groups is significantly worse for patients with post-operative complications and cardiovascular injury. However, long-term survival is better in Group 1 than in Group 2.

Conclusions: Risk of injury to LIMA increases operative mortality. Peripheral cannulation and pre-sternotomy cardiopulmonary bypass can help manage this - although numbers in this study too small. Alternatives to redo valve surgery are to be considered in high-risk patients and a multidisciplinary approach continued to be adopted for each case.