

Single centre experience of mitral valve surgery: propensity matched analysis of repair versus replacement on short and long term outcomes

Authors

Y S Haqzad¹; M Chaudhry¹; J Lodhia¹; M Loubani¹

¹ Castle Hill Hospital

Objective

Mitral valve surgery in adults involve both repair and replacement depending on the type of pathology affecting the valve. Studies suggest superiority of mitral valve repair in long term survival of patients compared to mitral valve replacement. The primary objective of this study was to evaluate short and long term survival (upto 11 years) of patients post Mitral Valve Surgery (Repair versus Replacement).

Method

This was a retrospective study of data entered prospectively into our cardiac surgical database between May 2004 and September 2015. 552 patients underwent first time mitral valve surgery (Replacement 318 vs Repair 234). Propensity matching (age, sex, EF, operative priority, euroscore, logistic euroscore and endocarditis) produced 194 patients in repair vs 194 patients in replacement groups. There were no significant differences ($p > 0.05$) in pre operative variables after matching.

Results

30 day mortality (7.2% versus 3.6%; $p = 0.117$) and Long term survival at 11 years (82% vs 82%; Log Rank 0.697) were comparable in repair vs replacement groups respectively. There were no significant differences ($p > 0.05$) in Post op stroke, MI, renal/respiratory failure, and GI complications between the two groups. Multivariate analysis revealed that post-op

arrhythmias, reopening and longer bypass and cross clamp times were significant determinants of mortality post mitral valve surgery ($p < 0.05$).

Conclusion

We have shown that the short and long term outcomes including survival rate is not affected by replacement versus repair in mitral valve surgery.