**MIDTERM COMPARISON OF ANNULOPLASTY RINGS IN ISOLATED MITRAL VALVE REGURGITATION**

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**Objective:**We preferred 3-dimensional saddle shape ring depending on its benefits over semi-flexible ring for the majority of the mitral pathologies.

**Methods:**From October 2009 to September 2017, 338 patients with isolated mitral valve regurgitation undergoing mitral valve repair were analysed. The etiology was degenerative in 183 patients (54.4%), ischemic in 122 patients (36.2%) and rheumatic in 33 patients (9.4%). Rigid annuloplasty ring was implanted in group I (n=117, 34.6%), 57 males and 60 females with a mean age of 62,11±13,67 years; whereas, flexible annuloplasty ring was inserted in group II (n=221, 65.4%), 121 males and 100 females with a mean age of 65,91±12,57 years. 87% of these patients had concomitant surgical procedures.

**Results:**There were 9 (8%) and 22 (10.1%) hospital mortality, due to low cardiac output syndrome, sepsis, acute renal failure and neurological incident. Freedom from reoperation was 98.2% with two patients for detachment of the ring in group I, and 96% with eight patients in group II. Residual regurgitation ratio was significantly higher in flexible group than rigid group (p<0.01). Recurrent MR was detected 11.5% and 27.9% of the patients, which was significantly higher in flexible group than in rigid group (p<0.01). On TTE, 14.2% of group I and 33.3% of group II had fully competence, whereas 75.3% and 65.5% had mild-moderate MR.

**Conclusion:**The optimal shape and flexibility of mitral annuloplasty rings are still controversial. Rigid ring has a significant advantage particularly in degenerative and rheumatic MR but there is a loss of superiority in ischemic MR lately due to LV remodeling.