Valvular atrial fibrillation: to ablate or not?

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Introduction: Incidence rate with associated mortality of valvular atrial fibrillation (AF) continues to be significantly high. Drug therapy for such a malignant AF type offers minimal relief due to limited success rate and significant side effects. Catheter ablation for such variants is emerging as a reliable and successful treatment strategy.

Methods: PubMed, Cochrane Library and EMBASE databases were searched using Prisma statement reporting standard till December 2017 to evaluate success of catheter ablation in valvular atrial fibrillation.

Result: Total of 96 studies were included through database, 52 studies were excluded as duplicate or irrelevant references, 18 studies were excluded by screening, eligibility excluded 2 articles, so the final number included in in the quantitative synthesis was 24 studies. Total 4809 patients from 24 studies in the period from 2004 to 2017 were included. Systolic function increased after the procedure where EF increase from 43.3% to 50.3% (95% CI was 45.2 to 55.3, P < 0.0001). The catheter ablation was effective in restoring sinus rhythm in patients with valvular AF after 1st procedure in 61.3%. The second procedure done in 16 studies due to AF recurrence; the rate of success increased after 2nd procedure to reach 82.9%.

Conclusion: AF ablation in valvular heart disease patients especially with heart failure have positive results. Given the previous evidence; it is considered as safe procedure. AF ablation namely substrate modification gives up to 70% success rate.