Abstract No. **54**
Category: **Valvular Heart Disease**
Title: **Aortic Valve Replacement with Trifecta Bioprosthetic Postoperative Evaluation of Clinical and Hemodynamic Performance**
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Abstract:

BACKGROUND: The Trifecta® valve is a latest generation bioprosthetic designed for supra annular aortic placement. The study main objective is the evaluation of the hemodynamic valve performance and the 3 to 72 months post implantation clinical status of the patients.

METHODS: Cohort study on patients older than 18 years, undergoing aortic valve replacement with Trifecta® biological valve prosthesis between march 2012 and december 2018. The follow up was made by clinical evaluation and serial echocardiogram from 3 months to 6 years after surgery.

RESULTS: 165 patients where included, 53.3% male. Mean age 69.6 years (30 -90). The main indication for valve replacement was aortic stenosis (66.7%). Mean EuroSCORE II was 4.18 (0.56 - 24.35). Preoperative 60.6%, 29.6% and 9.69% of patients where in New York Heart Association functional class(NYHA) II, III and IV respectively. After the surgery, the mean effective orifice area index (IEOA) was 1.025cm2/m2 for prosthesis No 19; 1.059cm2/m2 (prosthesis 21); 1.085cm2/m2 (prosthesis 23) and 1.069cm2/m2 (prosthesis 25). The mean transvalvular gradient was 4.2 mmHg at the immediate postoperative period, and the mean gradient at 1,2,3,4,5,6 years was 6.3, 7.1, 8.3, 8.9, 9.7 and 10.8 mmHg respectively. 30 days mortality was 2.42%. None of the patients have a post operative patient-prosthesis mismatch (PPM), neither thromboembolic events or endocarditis. There is no patients with re-operation for structural valve deterioration. After follow up, 83.6% of the patients are in NYHA I functional class.

CONCLUSION: In this Study group, Trifecta® valve for aortic valve replacement provides excellent clinical and hemodynamic outcomes demostrated by a low post operative transvalvular gradients; IEOA that avoid PPM; excellent clinical outcome and recovery of NYHA in more than 83% of the patients.