Transcatheter Aortic Valve Implantation: The Tel-Aviv Medical Center First 100 Patients Experience

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Background: Limited data exist on the results of a comprehensive TAVI program using Corevalve revalving system with transfemoral and transaxillary approaches for treatment of severe aortic stenosis.

Objectives: Our aim was to assess procedural success, echocardiographic and clinical outcome after transcatheter aortic valve implantation (TAVI) in the first 100 patients, performed with the Corevalve revalving system in a single center.

Methods: We report 30-day outcomes of high-risk patients consecutively treated in a single center with the Medtronic-CoreValve (MCV) (Medtronic, Minneapolis, Minnesota, delivered via the transfemoral or transaxillary approaches.

Results: A total of 100 high risk patients underwent TAVI: 95 via transfemoral, and 5 via transaxillary approach. The procedural success rate was 100%. Significant clinical and echocardiographic improvements occurred in 88% and 96% of patients, respectively. No intra-procedural deaths had occurred. The 30-day mortality rate was 3% in transfemoral group and no deaths occurred after transaxillary access. 18% of patients required permanent pacemaker implantation, and only 4% of patiens had significant aortic regurgitation on discharge. Vascular complication rate was 15%.

Conclusions: Routine TAVI using the Corevalve Revalving System. with a selection of approaches is feasible and allows treatment of a wide range of patients with excelent overall procedural success rates and 30-day outcomes.