

Patient Selection for Transcatheter Aortic Valve Implantation: Are we Aiming Higher or Lower (Risk)?

*Danenberg, Haim; Gilon, Dan; Loncar, Sasha; Elami, Amir; Lotan, Chaim
Hadassah Hebrew University Medical Center, Jerusalem, Israel*

Background and Objective: Transcatheter Aortic Valve Implantation (TAVI) is a promising technique that offers an alternative to conventional surgery for high-risk patients with severe aortic stenosis. The use of the procedure is increasing worldwide with over 400 procedures performed in Israel since 2008, showing favorable hemodynamic and clinical results. We questioned whether the indications and patient selection criteria have changed following the expanded use of the technique and its national re-imburement.

Methods and Results: Clinical characteristics of patients that underwent TAVI from September 2008 to December 2009 (prior to re-imburement, 21 patients, group 1) were compared with those of patients that underwent TAVI during 2010 (TAVI re-imbursed, 29 patients, group 2). The patients in group 1 were at a mean age of 77.5 ± 7.3 years and logistic Euroscore of $16.6 \pm 7\%$. The patients that underwent TAVI during 2010 (group 2) were significantly older, mean age 82.8 ± 5.6 years and of higher surgical risk, logistic Euroscore of $28.6 \pm 15.3\%$ ($p < 0.05$ for both variables). There was a marked increase in group 2 in the prevalence of patients that underwent prior thoracotomy, had prior CVA and had reduced left ventricular function. No differences were observed in pre-procedural hemodynamic parameters and in procedural and 30-day outcomes.

Conclusion: The expanded use of TAVI and the introduction of national re-imburement did not lead to selection of patients with lower surgical risk, as might be expected. The patients that underwent TAVI during 2010 were significantly older and of higher surgical risk. It seems that the wider exposure of this procedure to the public and medical community coupled with the gained expertise bring upon more complex patients.