

Initial Israel Experience and Results of Transfemoral Aortic Valve Implantation with the Edwards Sapien Valve

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We present the initial experience and results of transcatheter aortic valve implantation (THVI) with the Edwards Sapien Valve in Israel, using the trans femoral approach. The patient characteristics are presented in the table below:

Age Years	Sex	CAD	PCI	CABG	Peak Gradient mmHg	AVA cm2	Euro-Score%	Valve-mm
A)65	M	YES	NO	YES	86	0.6	17	26
B)86	F	YES	LAD	NO	95	0.6	69	26
C)82	M	YES	LAD	YES	140	0.5	44	26
D)78	F	YES	NO	NO	94	0.4	24	23

In addition all patients had significant mitral regurgitation, patient A had a porcelain aorta, patient D post bilateral radical mastectomy and both were refused surgery. All patients underwent successful THVI, but there were several complications: patient B had occlusion of the right external iliac artery- treated conservatively, patient D dissection of the femoral artery and repair with goretex graft. Patient B had embolisation of the initial valve, which was retrieved and placed in the descending aorta, and a 2nd larger valve successfully placed. In addition she had pericardial tamponade successfully drained. All patients survived (follow up 2-5 months) and their functional capacity improved from FC4 to FC 1-2.

THVI requires a dedicated programme involving cardiologists, cardiac surgeons, echocardiographers, catheterization laboratory nurses and technicians, as well as complete operating room and anaesthetic support. THVI at this time is indicated only for patients who are not candidates for surgical AVR- with a very high surgical risk (Euoroscore \geq 20).

Conclusion: THVI has the potential to provide definitive treatment for high surgical risk patients with aortic stenosis. The technique has a learning curve and complication rate but overall results are good.