Pacemaker Implantation after TAVI; Course and Follow-Up

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Background: 30 to 35 % of patients after Transaortic Valve Implantation (TAVI) need permanent pacing (PP) due to development of or apparent high risk of developing atrioventricular block (AVB). However, their outcome is not clear and it is unknown how many of those patients remain paced on long-term follow-up.
Objective: To assess the proportion of post-TAVI patients with PP who are pacemaker dependent.
Methods and Results: Between month 2009 to July 2011; 106 TAVI implants were performed at Rabin Medical Center (59 Core valve and 47 Edwards Sapiens). 20 patients received PP (18 with Core valve and 2 with Edwards Sapiens valve). PP indications are shown in the table. After an average follow-up time of 50+38 weeks only 4/20 patients (20%) were fully paced. The indication of PP in these 4 patients was complete AVB. Of the 12 patients originally paced for CAVB only 4/12 (33%) are pacemaker dependent. There were no significant differences in demographic and TAVI characteristics between groups.

Parameters	Pacemaker dependent group, n=4(%)	Pacemaker non-dependent group, n=16(%)	p-value
Indications for PM			
CAVB, n (%)	4 (100)	8 (50)	0.1
LBBB and prolonged PR, n (%)	none	7 (43.8)	0.2
>3 seconds Pauses, n (%)	none	1 (6.3)	1
Slow AF, n (%)	none	1 (6.3)	1

Conclusions: In our Center, the rate of PP was 20% which is lower than the reported in the literature. Only 20% of patients who required PP are pacemaker dependent. Further studies are necessary to predict the need of long term pacing.

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