First Israeli Experience Using the Bioresorbable Everolimus-Eluting Vascular Scaffold

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Aim:
We investigated the clinical outcomes after implantation of the Absorb Everolimus Eluting Bioresorbable Vascular Scaffold (Absorb BVS, Abbott Vascular, Santa Clara, CA, USA)

Background:
The Absorb BVS is the first CE-approved bioresorbabale scaffold in investigational and clinical practice. This stent has a bioabsorbable polymer backbone of PLLA(Poly-L- Lactic acid with a polymer coating of poly-D,L-lactide) that contained and controls the release of Everolimus.

Methods:
We used the Absorb BVS in 16 patients\17 de novo lesions. The Six month clinical outcomes were collected prospectively as follow: cardiac death, MI, and ischemia-driven target vessel/lesion revascularization (TVR/TLR). Absorb BVS sizes were of 3.0 X18 or 28mm and 2.5X18 mm. Proximal and distal reference vessel diameter stenosis (Dmax) was between 2.5 to 3.3 mm and lesion length was less than 28mm.

Results:
The mean age of patients was 64±9 years, 87% of patients were male and 44% had Type II diabetes mellitus. The majority of patients (i.e. 75%) were presented with unstable angina. Lesion location was: LAD (22%), LCX (50%), and RCA (24%). The overall procedural success was obtained in 17 of 17 implants (100%) and by intention to treat (meaning BVS implantation success) in 16 of 17 implants (94%) as the BVS became dislodged in one patient. At 6 month follow up there was no cardiac death or episodes of in-scaffold thrombosis and/or restenosis thus the overall MACE rate was 0%. One patient needed an additional non - TVR intervention.

Conclusions:
In carefully selected patients, the preliminary results following the use of Absorb BVS are excellent. The long-term and expanded indications data are awaited.