

### **The MGuard Coronary Stent in Degenerated and Thrombotic Lesions.**

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Background: MGuard was designed as a plaque trapping stent to treat atherothrombotic lesions in saphenous vein grafts (SVG) and native coronary vessels.

Objective: To explore the clinical results of using the MGuard mesh-covered stent. Methods: The MGuard stent was utilized in 27 patients (28 vessels, 39 stents). The mean age was 72.1 yrs and 85% were males. 22/28 patients had degenerated SVG lesions and 6/28 had a native stenotic RCA vessel. The clinical presentation was ACS (UAP/NSTEMI/STEMI) in 70% of patients, 59% patients had diabetes and 26% sustained some degree of renal insufficiency. The average graft age (n=27 SVGs) was 14 yrs (range 3-21). The mean stent length was 41±25 mm in vessels with a mean diameter of 3.5±0.8 mm. In 3 cases (11.1%) distal filter was used in addition to the MGuard stent.

Results: Device related success was obtained in 37/39 cases (95%). Failure to deliver the MGuard stent into the culprit lesion occurred in 2 cases (7.4%) where another stent (i.e. non MGuard) was successfully implanted. Procedural success was obtained in 27/28 cases (96.4%) and TIMI 3 flow grade was achieved in 27/28 (96%) of the treated vessels.

Clinical Outcomes are shown in the Table.

	One month	6 months
Death	0	3.7%
Cardiac Death	0	3.7%
MI	3.7%	7.4%
Stent Thrombosis	3.7%	3.7%
TVR	3.7%	7.4%
MACE	7.4%	11.1%

Conclusion: In suitable patients within SVG and/or native coronary vessels, the MGuard stent seems to be a viable treatment strategy in the percutaneous management of lesions that are particularly rich in athero-thrombotic material.