

### An Early Experience with the MGuard Stent: A Promising Device to Prevent Distal Embolization

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#### Background:

Lesions containing large mass of thrombus or atheroma, as in degenerated SVG and in patients with ACS, are at high risk for distal embolization.

#### Methods:

Early angiographic analysis and long-term clinical outcomes were evaluated in 38 patients who underwent MGuard stent implantation between 11/2008 –11/2009 in Hadassah University Hospital. Patients with bifurcation and calcified lesions were excluded.

#### Results:

Consecutive patients were treated by MGuard system in native arteries (Group A, n= 26), and to vein grafts (Group B, n= 12). Clinical indications were: STEMI (n=17), NSTEMI and Unstable AP (n=12) and elective (n=9).

Procedural success was achieved in all patients. Final TIMI III flow was documented in 22(86%) pts from group A and in 12(92%) patients from group B. There were no cases of in-stent thrombosis, procedure related MI or mortality during hospitalization.

Clinical follow-up at a mean of 5 ±2.3 months revealed a mortality rate 2.6%, restenosis 8%, 2.6% rate of TLR due to restenosis, and rehospitalization rate of 16%.

			Group A (n=26)	Group B (n=12)
Indication	STEMI	ALL	15 (58%)	2 (17%)
		Primary PCI	12 (46%)	1 (8%)
	NSTEMI and Unstable AP		7 (27%)	5 (42%)
	Elective		4 (15%)	5 (42%)
Procedural	TIMI before	0	11 (42%)	1 (8%)
		I	5 (19%)	2 (17%)
		II	7 (27%)	7 (58%)
		III	3 (12%)	2 (17%)
	TIMI final	0 - I	0	0
		II	4 (15%)	1 (8%)
		III	22 (86%)	12 (92%)
	Side branches arising from culprit		29	
	Side branch closure		5 (17%)	
	Ostial side branches compromise		8 (28%)	
Follow up	Mortality		0	1 (8%)
	Coronary angio follow-up		5 (19%)	3 (25%)
	Restenosis rate		2 (8%)	1 (8%)
	TLR		1 (4%)	0

Conclusion: Use of the MGuard stent for treatment of patients with a large thrombus/atheroma lesion achieves very high success rates with relatively low distal embolization rate, and is associated with good medium-term clinical result.