Left Main Stenting in Patients with Severe Aortic Stenosis Prior to Percutaneous Valve Interventions

Jaffe, Ronen[1]; Finkelstein, Ariel[2]; Lewis, Basil[1]; Guetta, Victor[3]; Khader, Nader[1]; Rubinshtein, Ronen[1]; Halon, David[1]; Segev, Amit[3]

[1]Carmel Medical Center, Cardiology, Haifa, Israel; [2]Tel Aviv Sourasky Medical Center, Cardiology, Tel Aviv, Israel; [3]Chaim Sheba Medical Center, Cardiology, Tel Hashomer, Israel

Patient #	Logistic Euroscore	Vascular access	Balloon pump	Lesion location	Stents	AS therapy
1	40	Femoral	Yes	Distal	Xience 3.5X18 mm	BAV
2	13	Femoral	No	Distal	Endeavor 3.0X30 mm	BAV
3	60	Brachial	Yes	Ostial	Promus 3.0X10 mm	BAV
4	13	Femoral	Yes	Ostial	SKS: Promus 3.5X15 mm, Promus 4.0X15 mm	TAVI
5	9	Radial	No	Ostial	Resolute 4.0X9 mm	TAVI
6	20	Femoral	No	Ostial	Driver 4.5X9 mm	TAVI
7	49	Femoral	No	Distal	Cypher 3.5X18 mm	TAVI
8	35	Radial	No	Distal	Culotte: Cypher 3.5X18 mm, Cypher 3.5X18 mm	TAVI
9	45	Radial	No	Distal	Culotte: Resolute 3.5X22 mm, Resolute 3.0X16 mm	TAVI
10	35	Radial	No	Distal	Cypher 3.5X18 mm	TAVI

Aims: High-risk patients with severe aortic stenosis (AS) who are candidates for transcatheter valve implantation (TAVI) or balloon aortic valvuloplasty (BAV) may additionally require revascularization of the unprotected left main coronary artery (UPLM). We aimed to assess the feasibility and acute procedural safety of UPLM stenting in such patients.

Methods and results: Ten cases of UPLM stenting prior to BAV or TAVI at three medical centers over a two year period were identified. Mean age was 84±4 years, aortic-valve area 0.70±0.12 cm2, left ventricular ejection fraction 58±3% and logistic EuroScore 32±17. Intra-aortic balloon counterpulsation was used in 3 patients. A single stent was used in 7 patients and two stents in 3 patients. One patient received a bare-metal stent and the others drug-eluting stents. No procedural complications occurred and the patients were hemodynamically stable. Three patients subsequently underwent BAV and 7 underwent TAVI. During 6 months of follow-up 2 patients died; one due to AS restenosis 6 months after BAV and one due to vascular complications 18 days after TAVI (34 days after UPLM stenting).

Conclusions: Stenting of the UPLM in patients with severe AS prior to percutaneous valve intervention seems feasible and safe. This approach may enable more patients to achieve comprehensive percutaneous therapy for severe coronary and valvular disease.