43. LONG-TERM CLINICAL OUTCOMES FOLLOWING PERCUTANEOUS CORONARY INTERVENTION TO SAPHENOUS VENOUS GRAFT IN ACUTE CORONARY SYNDROME

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Aims The longevity of saphenous vein graft (SVG) is relatively poor as compared to mammary graft. It is generally believed that outcomes following PCI to SVG is poor, however there is limited data in the literature that have demonstrated this notion. In this study, we have evaluated long-term clinical outcomes following PCI to saphenous vein graft (SVG) in acute coronary syndrome (ACS).

Methods A retrospective analysis was conducted on all patients who received PCI to a saphenous venous graft in the context of acute coronary syndrome between January 2011 to December 2021. Follow-up was achieved by reviewing admission records and previous clinic visits. The outcomes measured included: cardiac death, target-vessel myocardial-infarction (TVMI), target lesion revascularisation (TLR), target vessel revascularisation (TVR) and MACE (combination of cardiac death, target-vessel MI and target vessel revascularisation).

Results 306 patients with a mean age of 74 (range 46–91 years) were treated with PCI to SVG in context of ACS of which 17% were ST-segment elevation myocardial-infarction (n=51). 87% were males (n= 268), 41% were diabetic (of those 43% were insulin dependent), 35% (n=178) had renal dysfunction and 37% had impaired left ventricular function (ejection-fraction < 50%). With regards to procedural characteristics: 73% (n=276) were de-novo and remainder 10% (n=30) were in restenotic lesions. Based on the angiographic review, 21% (n=64) of grafts were considered degenerate (ectatic, aneurysmatic and/or thrombotic). During the procedure, the majority (66%) used semi-compliant balloons, 33% non-compliant balloons and 3% scoring balloons. Intra-vascular imaging was used in 5% of cases, embolic protection devices and thrombus aspiration were used in 8% cases and the use of GPIIB/IIIA inhibitors was 7%. Slow-flow/no-flow occurred in 21% (n=68) of procedures requiring intracoronary vasodilator but overall success rate was 94% (n= 287). The average stent diameter was 3.4 mm and average stent length was 40 mm. There were 10 deaths before discharge. During a median follow-up of 1438 days (47 months), cardiac death occurred in 94 patients (18.6%), target vessel MI was in 12% (n=36); TLR was 11% (n=35), TVR 14% (n=42) and overall MACE rate was 30.7% (n=94).

Conclusions Our data suggests that the long-term outcomes following SVG-PCI in ACS have high MACE rates, but the rate of repeat revascularization is acceptable considering the complex set of population and lesion subsets. Given the high MACE rates, PCI to native circulation should be considered if such options are available especially in the current era where there is significant improvement in the tool kit and expertise especially for undertaking PCI in complex lesion including chronic total occlusion.

Conflict of Interest None