Transradijalna perkutana koronarna intervencija lezije debila lijeve koronarne arterije bifurkacijskim "dedicated" DES stentom u 90-godišnjeg bolesnika

Transradial percutaneous coronary intervention for the treatment of left main coronary bifurcation lesion using one dedicated sirolimus eluting bifurcation stent in 90-year-old patient

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Uvod: Trenutne smjernice navode da je razumno razmotriti PCI debila lijeve koronarne arterije u bolesnika srednje anatomske složenosti i povećanog kirurškog rizika.¹ Bifurkacijske lezije se smatraju tehnički zahtjevnijima te su povezane s lošijim ishodima.² Prikazujemo primjenu "dedicated" bifurkacijskog stenta koji otpušta lijek, kod složene bifurkacijske lezije debila te istovremene balon dilatacije stenozne cirkumfleksne koronarne arterije. Ovakav stent smanjuje mogućnost oštećenja bifurkacije arterije, a proširena središnja čelija omogućava prolaz kroz stent i intervenciju na bočnoj grani koronarne arterije.³

Prikaz slučaja: Devedesetogodišnji bolesnik, koji boluje od arterijske hipertenzije i koji je prebolio akutni infarkt miokarda bez podizanja ST spojnice (NSTEMI) 5 mjeseci ranije, hospitaliziran je pod kliničkom slikom nestabilne angine pectoris. Za vrijeme hospitalizacije dolazi do razvoja plućnog edema u podlozi kojeg je bio novi NSTEMI. Dijagnostičkom koronarografijom je utvrđena signifikantna 90% stenoza distalnog debila (LM), 80% stenoza proksimalnog segmenta cirkumfleksne arterije (Cx) i 90% stenoza srednjeg i distalnog segmenta desne koronarne arterije (RCA). SYNTAX score je iznosio 22. Za PCI SYNTAX Score II je bio 41,5 s četvorogodišnjim mortalitetom od 16,9%, dok je za CABG SYNTAX Score II iznosio 52,9 s četvorogodišnjim mortalitetom od 38,3%. EuroSCORE je iznosio 29,16%, a EuroSCORE II 9,58%. Uzimajući u obzir izračunate skorove i želju bolesnika, pristupa se perkutanoj koronarnoj intervenciji. Desnim transradijalnim pristupom retrogradno se kateterizira aorta i vodeći kateter 6F JL 4 se postavi u lijevu koronarnu arteriju, potom se postavi žica Runthrough Floppy str/180-cm daleko u periferiju Cx, a zatim se daleko u periferiju LAD postavi žica Whisper MS str/190 cm. Prvotno se uradi predilatacija lezije u distalnom debilu balonom PTCA catheter Mini Trek 1.20x15 mm, a zatim i balonom Mini Trek 2.5x15 mm. Završno se implantira bifurkacijski stent DES bifurcation BioSS LIM 3.0 distal – 3.75 prox. većim promjerom u distalni dio LM, a manjim u proksimalni segment LAD. Potom se uradi POBA srednjeg segmenta Cx kroz bočnu stranu stenta. Finalna koronarografija je pokazala dobar angiografski rezultat bez disekcije. Ovo je prva uporaba ovakvog stenta u Kliničkom bolničkom centru Split.

Background: Current guidelines state that it is reasonable to consider unprotected left main PCI in patients with low to intermediate anatomic complexity who are at increased surgical risk.¹ Coronary bifurcation lesions are considered technically challenging and associated with worse clinical outcomes.² We present a complex left main bifurcation lesion treated with a dedicated sirolimus eluting bifurcation stent, BioSS Lim in combination with plain balloon angioplasty (POBA) of circumflex artery. The dedicated stent protects the carina from being damaged, the large cell at the middle zone gives possibility to enter easily into the side branch with any standard size conventional device.³

Case report: 90-year-old man with a history of hypertension and non ST-segment elevation myocardial infarction (NSTEMI) which he had suffered five months earlier presented with an unstable angina. During hospitalization unstable angina has evolved to NSTEMI leading to acute pulmonary edema. Diagnostic coronary angiography revealed a 90% stenosis in distal left main coronary artery (LM), 80% stenosis in proximal segment of circumflex coronary artery (Cx) and 90% stenosis in mid and distal segment of right coronary artery (RCA). SYNTAX score was 22. For PCI SYNTAX Score II was 41.5 with predicted 4 year mortality of 16.9% and for CABG it was 52.9 with 4 year mortality of 38.3%. EuroSCORE was 29.16% and EuroSCORE II was 9.58%. Considering calculated scores and patient's wish to be treated by less aggressive medical procedure, PCI was performed. PCI was performed using a right radial artery approach. With 6F JL 4 catheter the left main coronary artery was engaged. A Runthrough Floppy str/180-cm was placed in distal segment of Cx and another wire, Whisper MS str/190 cm was placed in distal segment of LAD. Predilatation in distal LM was done with balloon PTCA catheter Mini Trek 1.20x15 mm and afterwards with balloon Mini Trek 2.5x15 mm. Then a bifurcation drug eluting stent (DES) BioSS Lim 3.0 distal – 3.75 prox. was implanted, with the larger diameter in distal segment of LM and with smaller diameter in proximal segment of LAD. After BioSS Lim stent implantation, POBA was performed in mid segment of Cx without predilatation to dilate the stent struts. Final angiography showed adequate flow. This is the first use of BioSS Lim stent in University Hospital Centre Split.

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