



Drug Eluting Balloon for Coronary Bifurcation Lesion:

A ‘Hybrid Strategy’

Dr Jasmin Vahora*¹, Dr Devang Desai²

1,2. Unicare Hospital and Research Institute, Surat.

***Correspondence to:** Dr Jasmin Vahora, Unicare Hospital and Research Institute, Surat.

Copyright

© 2024 **Dr Jasmin Vahora**. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Received: 27 March 2024

Published: 05 April 2024

Keywords: DCB-Drug coated balloon,DES- Drug eluting stent, coronary bifurcation lesion, hybrid strategy.

We present the application of a ‘hybrid strategy’ combining a DES in the main branch and a DCB in side branch.

A 64 year hypertensive male patient with chest pain underwent CAG at our centre which showed bifurcation lesion in LAD and D1 (Medina 1,1,1). We decided to apply ‘hybrid strategy’ through the association of DCB in side branch and DES in main branch to tackle intimal hyperplasia and restenosis in small calibre (2mm) side branch.

D1 lesion was crossed with 0.014’’ run through NS wire. Predilatation of D1 done with 1.5X8 mm semi compliant balloon with good angiographic result ($\leq 30\%$ residual diameter stenosis, TIMI 3 flow & no dissection). Drug eluting balloon Angioplasty done with 2.0X10 mm MAGIC TOUCH DEB at 10 ATM with single 60 s inflation in accordance with current DEB application guidelines. LAD lesion was crossed with 0.014’’ run through NS wire & predilated with 2.0X12 mm balloon at 14 ATM pressure. 3.0X48 DES was deployed at 14 ATM & post dilated with 3.5 X8 mm NC balloon. We achieved good angiographic result with procedural success defined as both DES/DCB delivery & implantation at the ‘target’ lesion sites with $<30\%$ DS (residual diameter stenosis) in the DCB-treated segment & $<10\%$ DS in DES-treated segment & distal TIMI 3 flow. Post procedure stay was uneventful and our patient is on regular follow-up without any complications.

The application of ‘hybrid strategy’ combining a DES in the MB and a DCB in the small calibre ($\leq 2\text{mm}$) SB provide advantage in coronary bifurcation lesion PCI by reducing the total stent length while maintaining effective antiproliferative action.

