

A Challenging Restenosis Lesion

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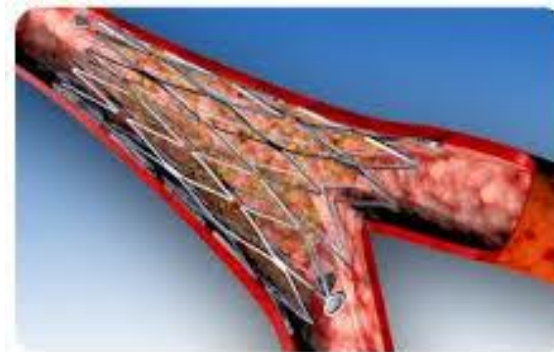
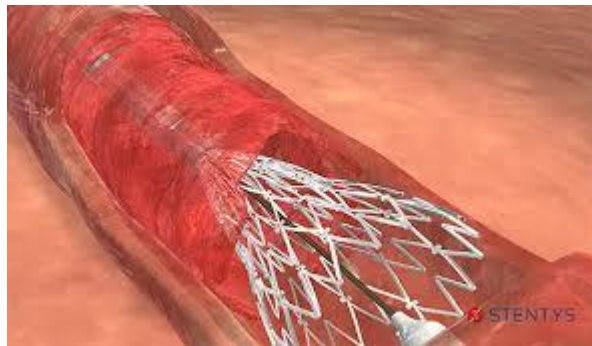
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Disclosure Statement of Financial Interest

I, Eric Van Belle DO NOT have a financial interest/arrangement or affiliation with one or more organizations that could be perceived as a real or apparent conflict of interest in the context of the subject of this presentation.

Initial procedure



Situation

- Ostial restenotic lesion of the diagonal branch without obvious compromise of the LAD
- Is chest pain/ischemia related to the ostial lesion?
 - Although tight, this is a very short ostial lesion → does not necessary induce ischemia
- Is chest pain/ischemia related to the LAD lesion?
 - Although moderate, this is a relatively ostial lesion → could induce ischemia
- In case the diagonal lesion “only” requires treatment it will be difficult to not touch the LAD while treating the ostium of the diagonal branch.

Clarify the relation between chest pain/ischemia and the coronary lesion(s)

- Where the ischemia take place?
 - ECG changes?
 - Non-invasive test?
- Angiographic views of the bypasses and right coronary artery
- Additional angiographic views of the bifurcation
- Intracoronary physiology LAD and Diagonal:
 - FFR or iFr (with an hybrid approach)

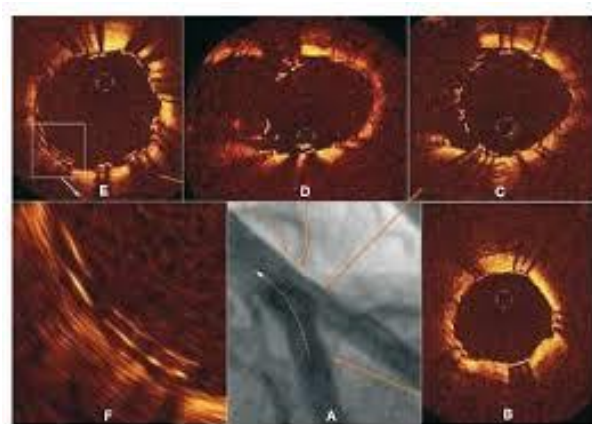
Treating the ostial diagonal lesion (LAD lesion)

- Understand the mechanisms involved in the ostial diagonal restenotic lesion
 - Incomplete ostial stent coverage ?
 - Complete stent coverage but
 - stent under expansion
 - Intimal hyperplasia
- Understand the mechanisms of the LAD (restenotic?) lesion
 - Atherosclerotic lesion
 - Intimal hyperplasia
 - Stent deformation/under-expansion

Clarify how the initial procedure was conducted

- Review the initial case
 - Axxess stent prox LAD + Limus stent in the diagonal branch
 - No stent in the distal LAD
- Predilatation of distal LAD ?
- Overlap/Gap between Axxess and distal diagonal stent?
- Post-dilatation of distal LAD?
- Kissing ? With or without high pressure balloon ?

Intracoronary imaging: OCT or IVUS



- Key focus on the distal axcess stent and its relation with the diagonal stent and the distal LAD:
 - Incomplete ostial stent coverate ?
 - stent under expansion/deformation?
 - Intimal hyperplasia?
 - Atherosclerotic lesion?
 - Sizing the vessel

Treating the ostial lesion (LAD lesion)

- If possible avoid to implant any additional metallic stent
- Ostial lesion only (FFR LLAD negative or borderline positive) → diagonal remains the main target:
 - High pressure (>20 atm) inflation of the diagonal branch with non-compliant balloon
 - Kissing at regular pressure to prevent compromise of the distal LAD by shift or over-expansion of the diagonal stent
 - Provisional OCT control to verify than the initial problem is solved
 - 20 mm drug eluting balloon (about 2.5 mm) in LAD-diagonal

Treating the ostial lesion (LAD lesion)

- If possible avoid to implant any additional metallic stent
- Involvement LAD (FFR LAD very positive <0.75) → LAD becomes the main target:
 - Aggressive ballooning LAD and diagonal
 - High pressure non-compliant kissing balloon LAD-diagonal
 - Provisional OCT Control
 - Then:
 - DEB distal LAD and diagonal-stent at low pressure
 - Alternative option: implantation of a DES LAD + Kissing non-compliant high pressure + DEB diagonal