Our clinical experience with the retrograde CTO approach 2008

Jacques Koolen MD PhD FSCAI
Catharina Hospital Eindhoven
The Netherlands
Introduction

Purposes of recanalization of chronically occluded coronary arteries:

- Improve symptoms
- Improve left ventricular function
- Improve clinical outcome (increase long-term survival)
- Reduce need for CABG
- Reduce predisposition to arrhythmias
- Increased tolerance for future coronary occlusion events
Indication

- Proven ischemia (scintigraphy) in the area related to the CTO.
- Complaints > 2/4, optimal medication
Strategy

- Antegrade first (real ostial lesions excluded ?)
- If retrograde approach is likely, planning is important it can be time consuming!
Procedure requirements

• Short guiding (7-8F)
• Long balloon
• Special balloon 0.8,1.0,1.1,1.25.
• Long wire
• Snare-device ?
Special equipment

Guiding:
• Medtronic/Cordis 90 cm.

Guide wire:
• 180-185-300 cm
• PT, MIRACLE, Fielder, Confianza

Balloon catheters:
• TERUMO OTW 1.25-148
• SORIN 1.1 Acrostack 138 cm
• INVATEC OTW 1.0 145 and 160 cm
• BLUE MEDICAL 1.1-158
Procedure/collaterals

• Epicardial
• Septal
• Others
CTO’s in the Catharina Hospital

• 246 CTO procedures in 2008 (total 4026, 7 operators).
• Of which 90 procedures performed by me.
• 35 retrograde approaches in 29 patients.
• 4 pts 2 retrograde attempts.
• 1 pt 3 attempts.
• 19 procedural success
• 19 out of 29 pts successful
• One death
• One myocardial infarction
What have I learned so far?
Remarks / Questions I

• Which collateral?
• Dilate the collateral?
• How to handle spasm?
Remarks / Questions II

• Which wire is where?
• How to handle once the wires are on-line?
• Snare, Aligne, Cart?
Remarks / Questions III

- Use specials tools for a special approach
- Use over the wire
Conclusion

• It is feasible
• It takes a learning curve
• It asks for a special approach and special tools.
• There is clinical experience, but no handbook yet.
CTO

- INDICATION !!!!
- Orientate and concentrate
- GUIDING
- WIRE
- And/or
- COMPLICATIONS
- WHEN TO STOP
CTO - when to stop

- Tamponade, or other severe complication.
- X = ray.
- Contrast.
- Patient operator fatigue.
- Return another time.
CTO - remind!

- Guiding
- Over the wire, wire exchange, contrast injection.
- Contralateral injection.
- Redirect wire, two wires.
- Retrograde approach.
- Don’t give up, but it is not a shame to do so.
- Wall contrast is no problem.
- Retun another time.
- Patient operator x-ray contrast.
- Be relaxed; take your time.
CTO

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CTO, when to stop

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