



31 GIORNATE CARDIOLOGICHE TORINESI

TURIN
October
24th-26th
2019

Left main «true bifurcation» treatment



The challenge Let's start with 2 Stents

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Clinical case

L.P., 76 years old gentleman with stable angina (CCS II) refractory to beta-blocker therapy

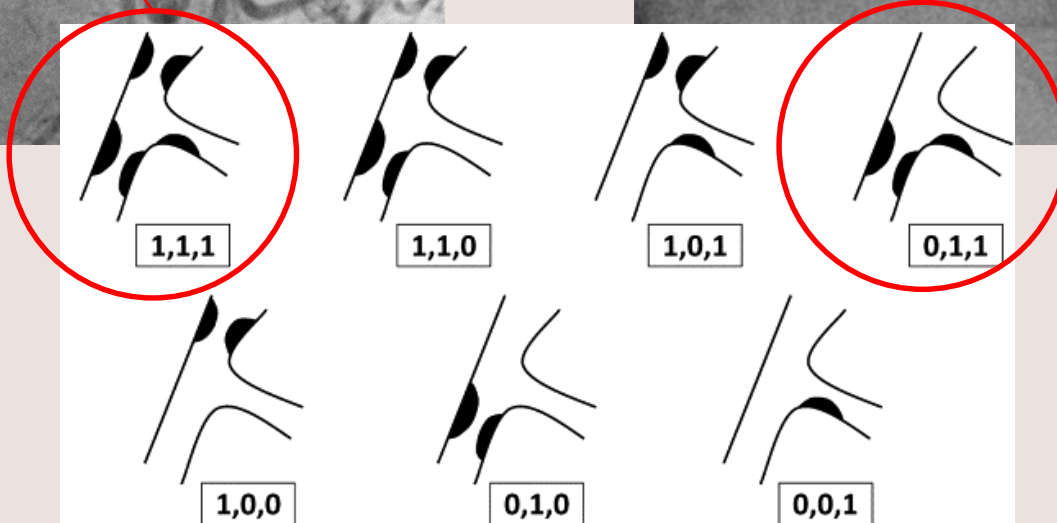
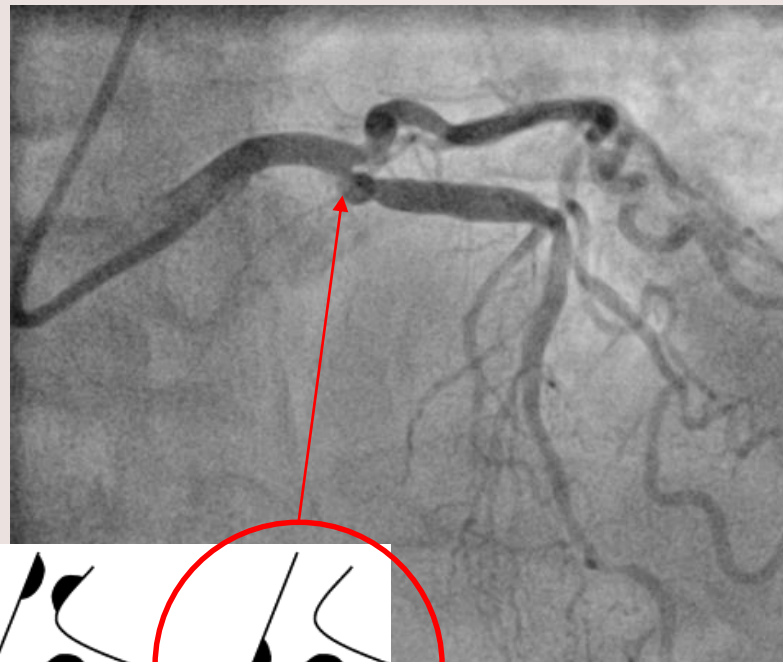
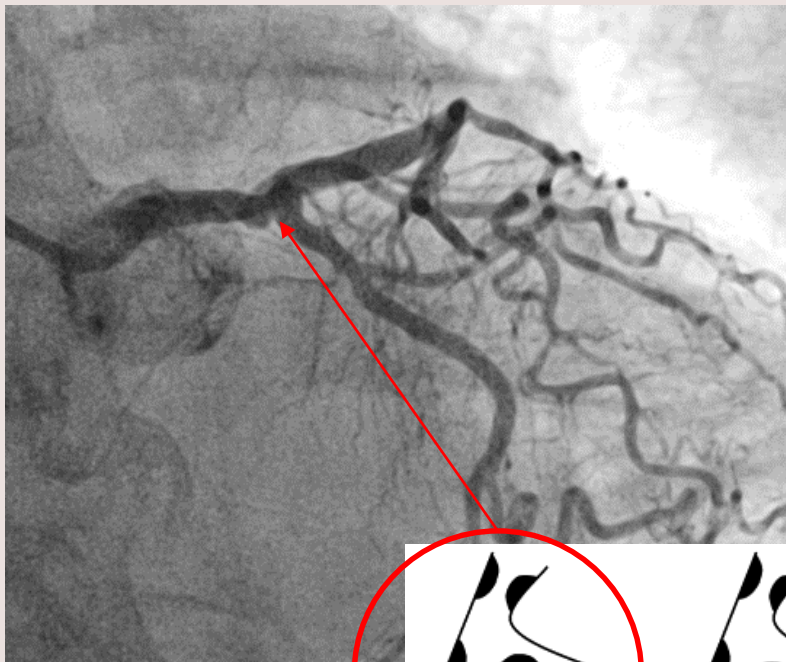
- Hypertension
- Family history of CAD
- Chronic obstructive pulmonary disease
- No previous known heart disease



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Medina class





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- Fibrocalcific stenosis of distal left main with involvement of both ostial LAD and LCx (1.1.1)
- Syntax score 31
- Short lesion of ostial LCx
- Percutaneous approach (patient's preference)

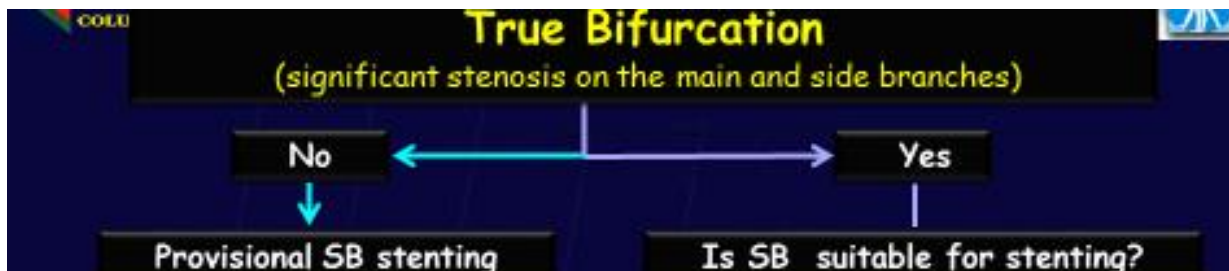
Which option the best?



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Stenting Technique



Approach is dictated by the
Side Branch!





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ESC Guidelines 2018

Recommendations	Class ^a	Level ^b
Stent implantation in the main vessel only, followed by provisional balloon angioplasty with or without stenting of the side branch is recommended for PCI of bifurcation lesions. ^{654–658}	I	A
Percutaneous revascularization of CTOs should be considered in patients with angina resistant to medical therapy or with a large area of documented ischaemia in the territory of the occluded vessel. ^{629,659–663}	IIa	B
In true bifurcation lesions of the left main, the double-kissing crush technique may be preferred over provisional T-stenting. ⁶²⁰	IIb	B



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EBC MAIN

- The European Bifurcation Club Left Main Coronary Study - a randomised comparison of Single versus Dual Stenting for True Bifurcation Left Main Coronary Lesions





EBC Main Study Hypothesis

- "Left main coronary bifurcation lesions (type 1,1,1 or 0,1,1: both LAD and Cx >2.75mm diameter) are best treated with a planned provisional single stent strategy rather than a planned dual stent strategy, with respect to death, target lesion revascularisation and myocardial infarction at 1 year."



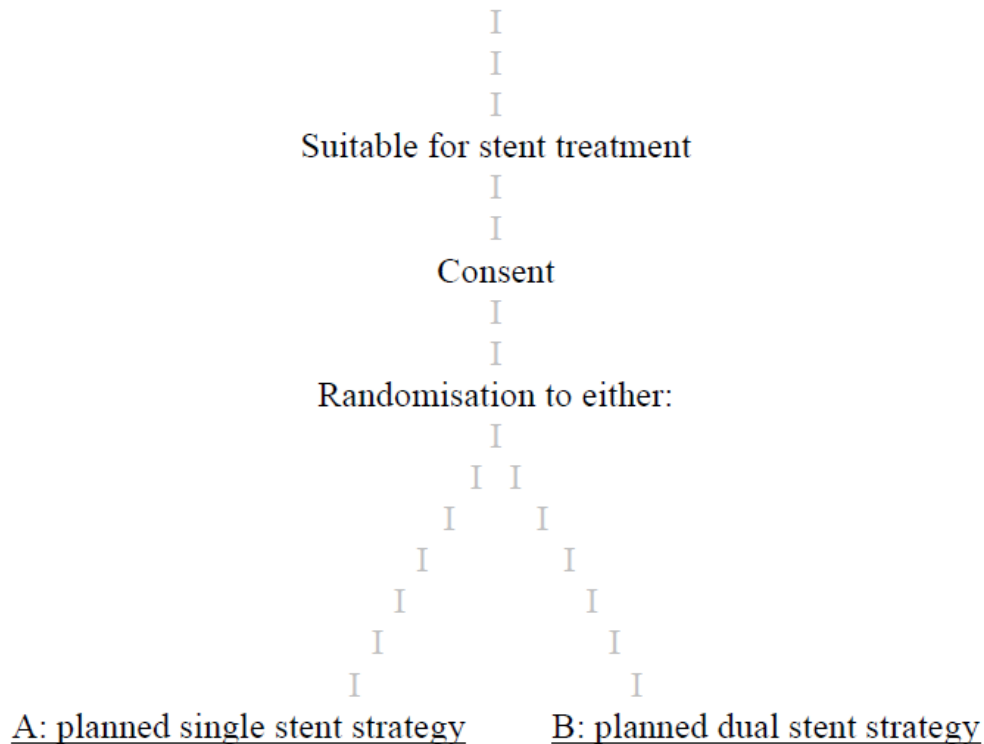
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EBC MAIN

450 pts

Patient with left main stem true bifurcation lesion (1,1,1 or 0,1,1)
(LAD and Cx both >2.75mm)



A: planned single stent strategy

B: planned dual stent strategy



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Endpoints

- **Primary:**
 - Death, Myocardial infarction and Target Lesion Revascularisation at 12 months
- **Secondary:**
 - Death, MI, TLR, individually
 - Angina status
 - Stent thrombosis
 - Death, MI, TLR at 3 yrs, 5 yrs
- **Procedural:**
 - Procedure success and MACE
 - In-hospital MACE
 - Procedure duration, fluoroscopy, diamentor and cost

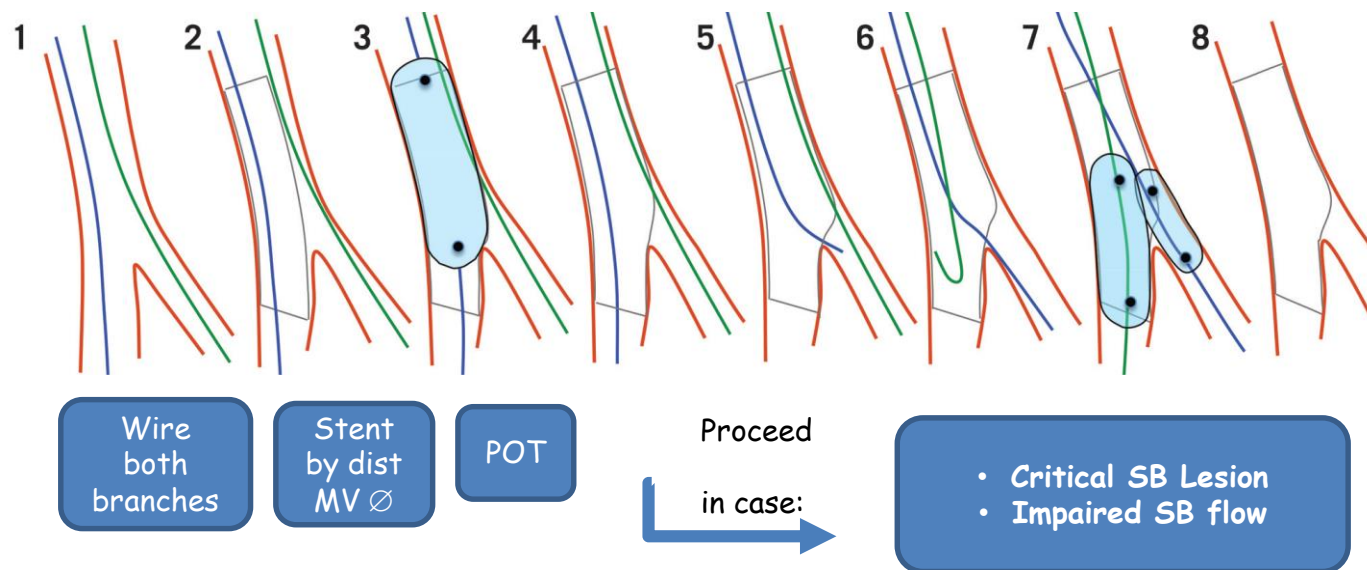


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Plan Your Procedure: Decide Your Stenting Technique

Provisional Side Branch Approach



Chieffo et al EuroIntervention. 2016 May 17;12(1):47-52.
Burzotta et al EuroIntervention. 2018 May 20;14(1):112-120.

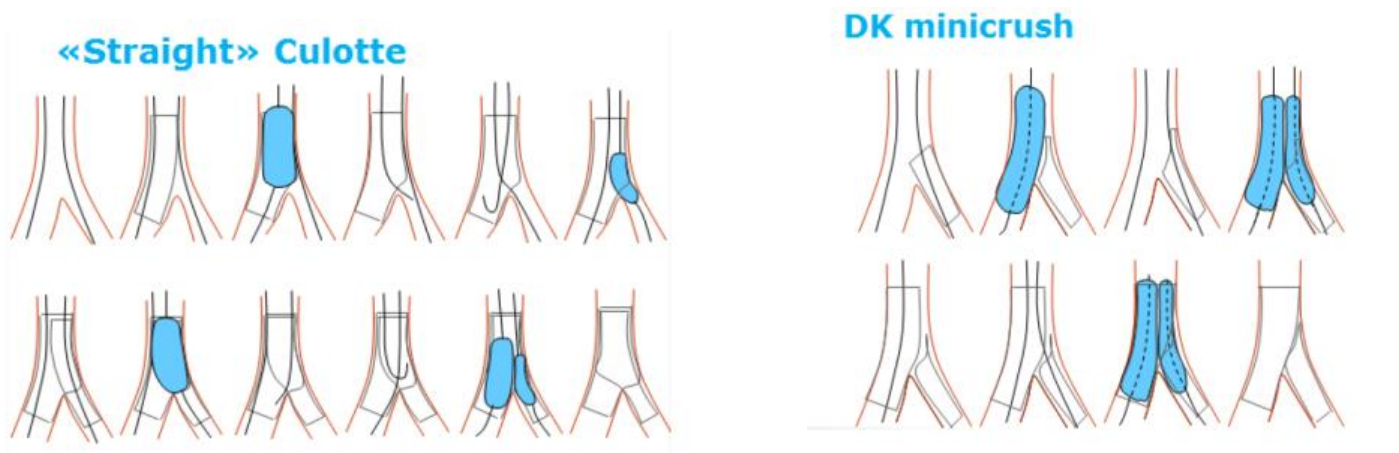


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Plan Your Procedure: Decide Your Stenting Technique

Two Stent Approach



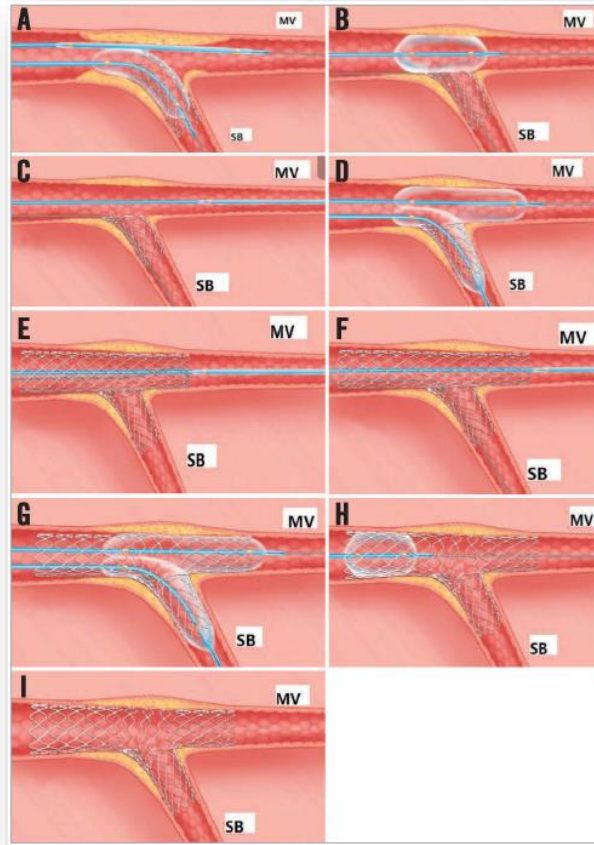
Chieffo et al EuroIntervention. 2016 May 17;12(1):47-52.
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DK Crush technique





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Importance of Functional and Imaging Guidance

Recommendations on functional testing and intravascular imaging for lesion assessment

Recommendations	Class ^a	Level ^b
When evidence of ischaemia is not available, FFR or iwFR are recommended to assess the haemodynamic relevance of intermediate-grade stenosis. ^{15,17,18,39}	I	A
FFR-guided PCI should be considered in patients with multivessel disease undergoing PCI. ^{29,31}	IIa	B
IVUS should be considered to assess the severity of unprotected left main lesions. ³⁵⁻³⁷	IIa	B

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Recommendations on intravascular imaging for procedural optimization

Recommendations	Class ^a	Level ^b
IVUS or OCT should be considered in selected patients to optimize stent implantation. ^{603,612,651-653}	IIa	B
IVUS should be considered to optimize treatment of unprotected left main lesions. ³⁵	IIa	B

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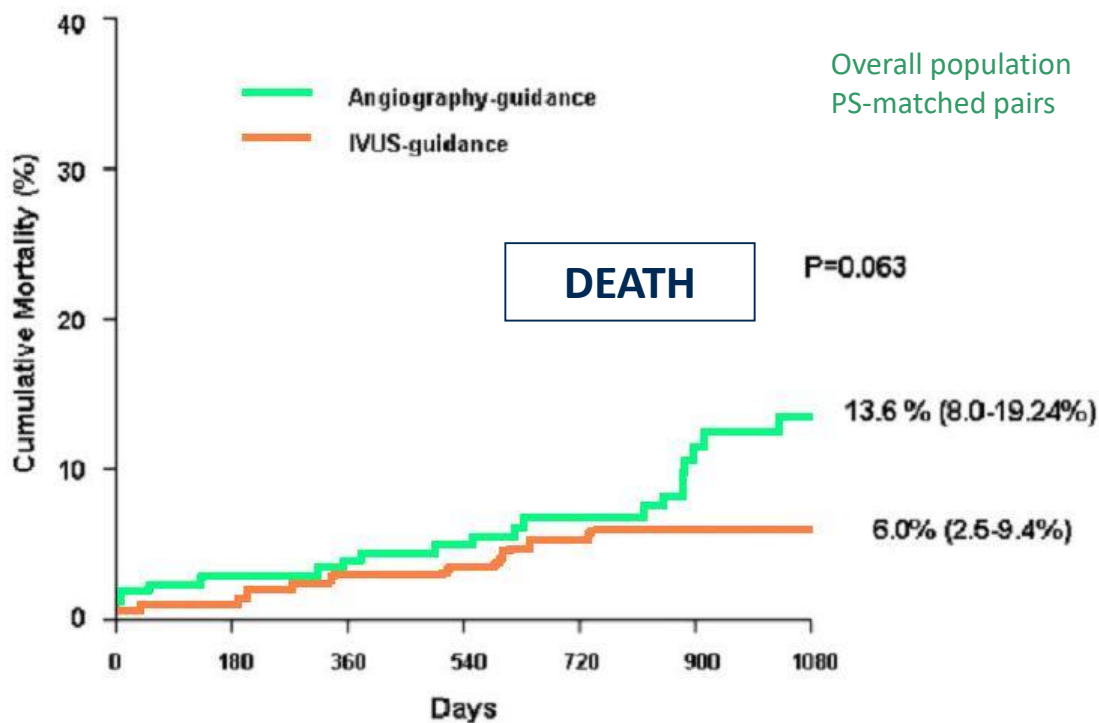
European Heart Journal (2019) 40, 87-165
doi:10.1093/eurheartj/ehy394



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IVUS-guided PCI

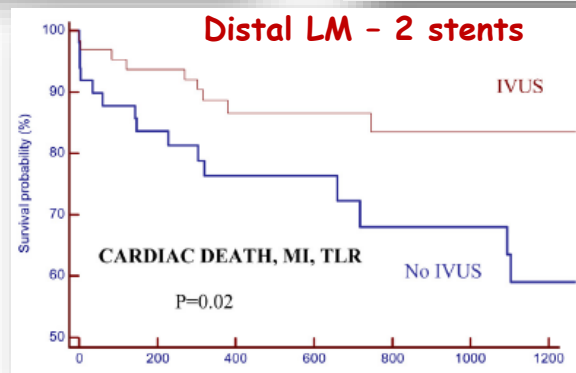
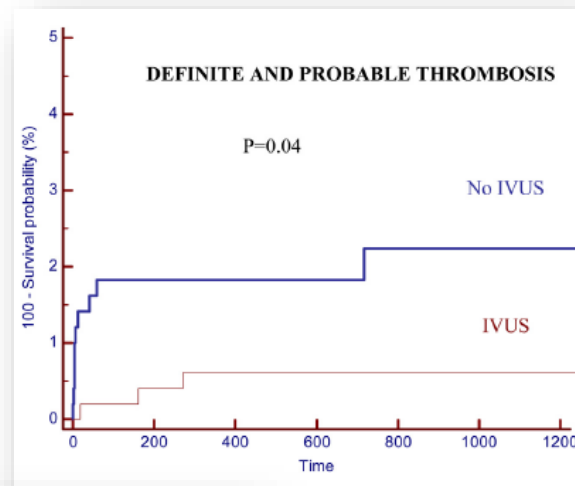
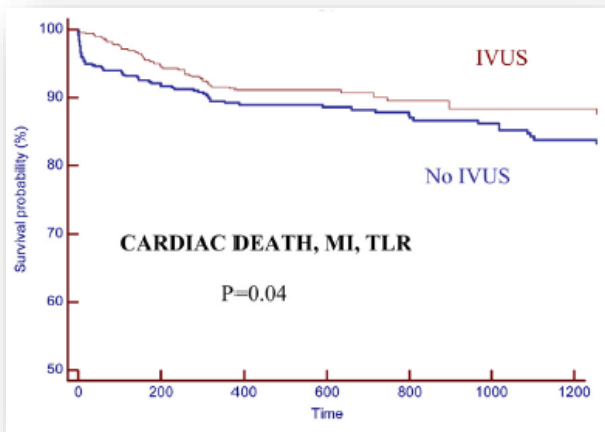




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IVUS-guided PCI - IVUS-TRONCO study





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Conclusions: I would I treat this case

- Radial Approach
- No need for p-LVAD
- IVUS guidance
- Disease in SB with unfavorable take off
 - > 2 stent technique > DK Crush