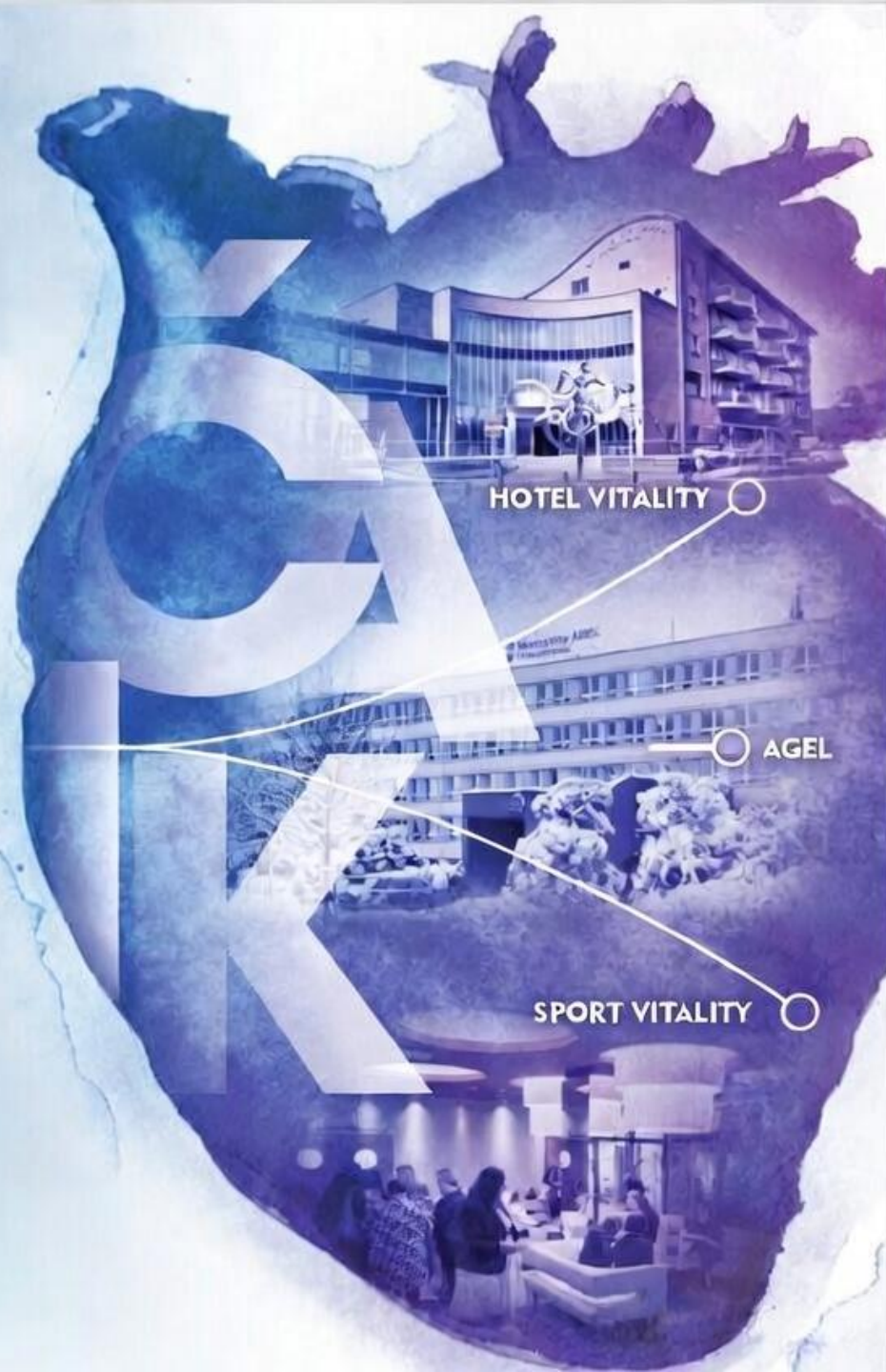


**XXXV.** WORKSHOP ČESKÉ ASOCIACE  
INTERVENČNÍ KARDIOLOGIE

15.-17. DUBNA 2026 | TŘINEC

**LIŠÍ SE MOJE  
PŘÍPRAVA LÉZE  
PŘI POUŽITÍ DCB?  
CO SI MOHU  
DOVOLIT NECHAT  
JAKO VÝSLEDEK?**

**MUDr. Lukáš Urban, PhD.**  
**Nemocnice Třinec-Podlesí**



# Drug coated balloons

- Použitie je rozšírené a narastá<sup>1</sup>
- Nedostatok dát z veľkých RCTs
- Prax – konsenzus expertov



**JACC STATE-OF-THE-ART REVIEW**

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# Indications for Use of Drug-Coated Balloons in Coronary Intervention



## Academic Research Consortium Position Statement

Simone Fezzi, MD, MSc,<sup>a,b</sup> Patrick W. Serruys, MD, PhD,<sup>a</sup> Bernardo Cortese, MD, PhD,<sup>c,d,e</sup> Bruno Scheller, MD,<sup>f</sup> Fernando Alfonso, MD, PhD,<sup>g</sup> Raban Jeger, MD,<sup>h,i</sup> Antonio Colombo, MD,<sup>j</sup> Michael Joner, MD, PhD,<sup>k</sup> Eun-Seok Shin, MD, PhD,<sup>l</sup> Franz Kleber, MD, PhD,<sup>m</sup> Azeem Latib, MD,<sup>n</sup> Tuomas T. Rissanen, MD, PhD,<sup>o,p</sup> Simon Eccleshall, MD,<sup>q</sup> Flavio Ribichini, MD,<sup>b</sup> Ling Tao, MD, PhD,<sup>r</sup> Bon-Kwon Koo, MD, PhD,<sup>s</sup> Alaide Chieffo, MD, PhD,<sup>t,u</sup> Junbo Ge, MD,<sup>v</sup> Juan F. Granada, MD,<sup>w</sup> Hans-Peter Stoll, MD, PhD,<sup>x</sup> Christian Spaulding, MD, PhD,<sup>y</sup> Rafael Cavalcante, MD,<sup>z</sup> Alexandre Abizaid, MD, PhD,<sup>aa</sup> Takashi Muramatsu, MD, PhD,<sup>bb</sup> Konstantinos Dean Boudoulas, MD,<sup>cc</sup> Ron Waksman, MD,<sup>dd</sup> Roxana Mehran, MD,<sup>ee</sup> Donald Cutlip, MD,<sup>ff</sup> Mitchell Krucoff, MD,<sup>gg</sup> Gregg W. Stone, MD,<sup>ee</sup> Scot Garg, MD, PhD,<sup>hh,ii</sup> Yoshinobu Onuma, MD, PhD<sup>a</sup>

# CENTRAL ILLUSTRATION: DCB Academic Research Consortium Indications for Use of DCBs in Coronary Intervention: A Step-by-Step Approach for the DCB-Only Strategy



OPTIMAL LESION PREPARATION BEFORE DCB	
Standard balloon (SC, NC) 1:1 sized on distal RVD <sup>9</sup>	Exp
Long inflations (>30 sec) are recommended <sup>134,135</sup>	Exp
Specialty balloons (scoring, cutting) are recommended to improve lesion preparation and decrease the risk of flow-limiting dissections <sup>133,136</sup>	RCT
Intravascular imaging is encouraged for more precise assessment of vessel size and calibrated DCB selection, plaque composition and morphology <sup>25,85</sup> • IVI may lead to superior angiographic outcomes after DCB-only PCI <sup>85</sup>	RCT
Calcium debulking (IVL, RA, OA) is recommended in case of moderate-to-severe calcification <sup>98,99</sup>	Exp

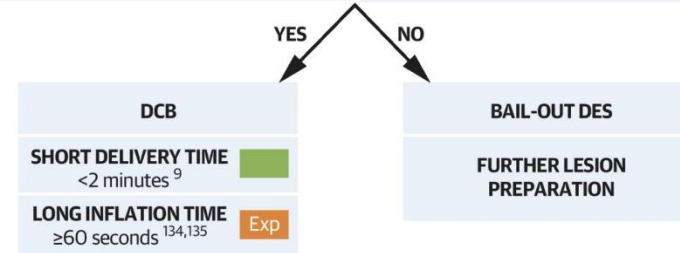


## ACCEPTABLE RESULT FOLLOWING LESION PREPARATION

ANGIOGRAPHY		INTRAVASCULAR IMAGING	
<b>RESIDUAL STENOSIS</b>		Media dissections may facilitate drug transfer to the vessel wall <sup>75</sup>	
Visual estimation <sup>9</sup>	≤30% Exp	Exp	
QCA <sup>*,12,13</sup>	Optimal ≤25%	No evidence-based IVI criteria is currently established for DCB optimization	
	Suboptimal 25-40%	Exp	



NON FLOW-LIMITING DISSECTIONS	CORONARY PHYSIOLOGY (FFR/QFR/NHPR)
Exp	Exp
<ul style="list-style-type: none"> <li>• TIMI 3 flow</li> <li>• No ECG changes</li> <li>• No chest pain</li> </ul>	No evidence-based threshold is currently available • Pd/Pa >0.90 <sup>137</sup> • QFR/FFR >0.80 <sup>9</sup>



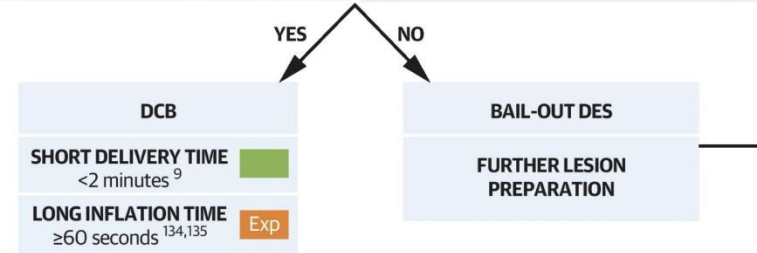
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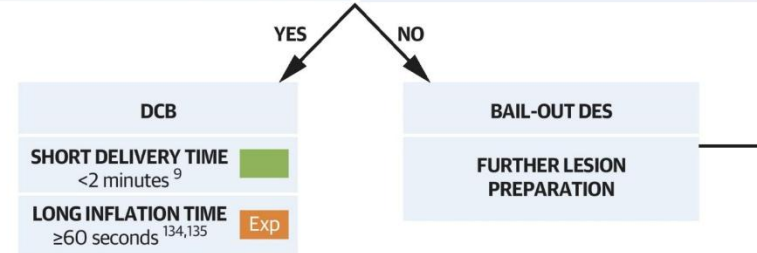


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# Liší se moje příprava léze při použití DCB?

- Adekvátna príprava lézie – absolútny základ
- Platí aj pri stentoch
- Pri DCB absentuje scaffolding





## OPTIMAL LESION PREPARATION BEFORE DCB

Standard balloon (SC, NC) 1:1 sized on distal RVD<sup>9</sup>

Exp

**Long inflations** (>30 sec) are recommended<sup>134,135</sup>

Exp

**Specialty balloons** (scoring, cutting) are recommended to improve lesion preparation and decrease the risk of flow-limiting dissections<sup>133,136</sup>

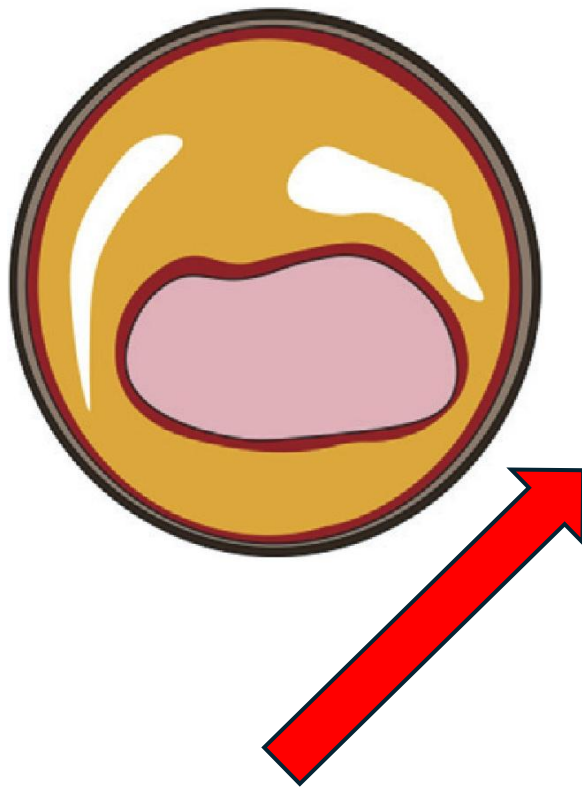
RCT

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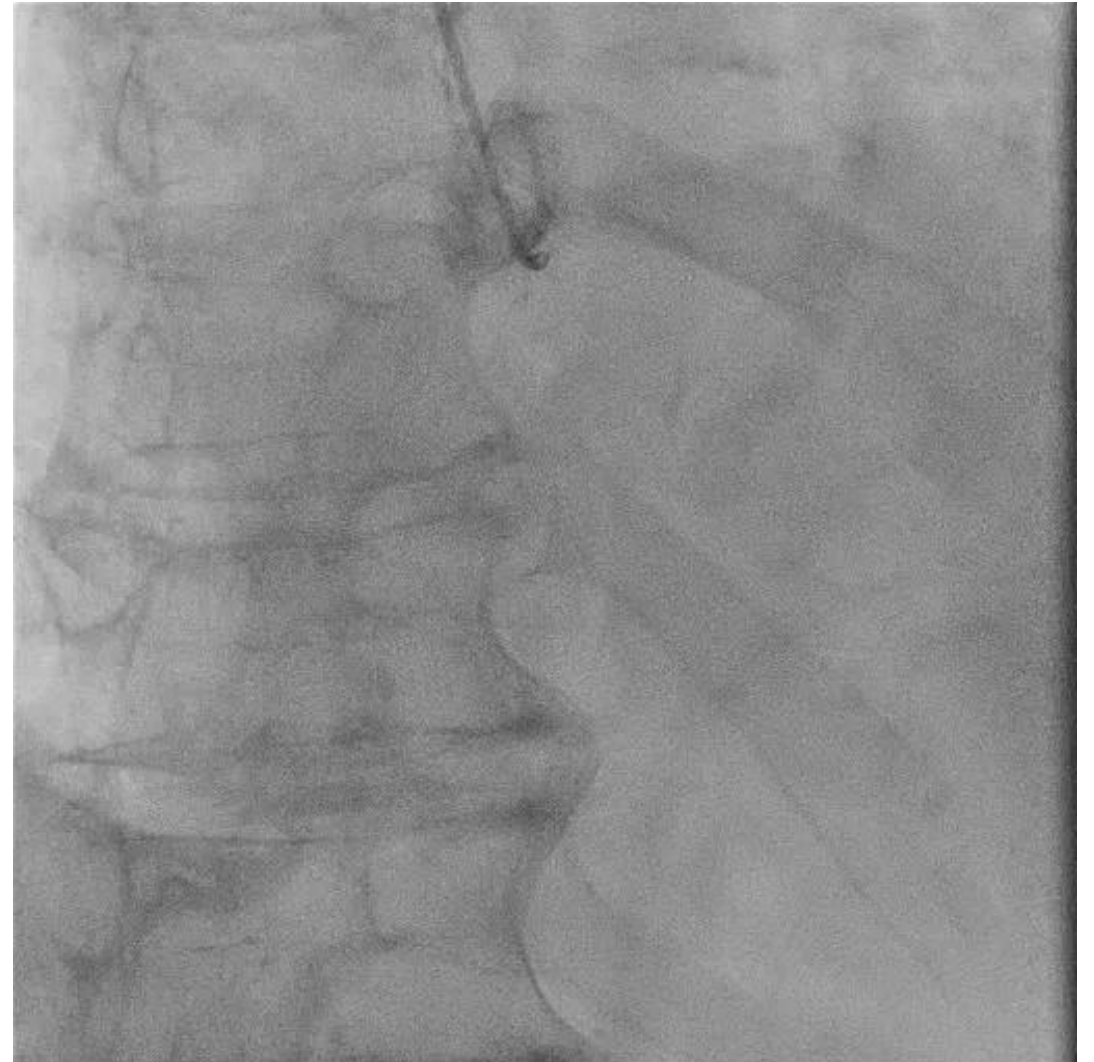
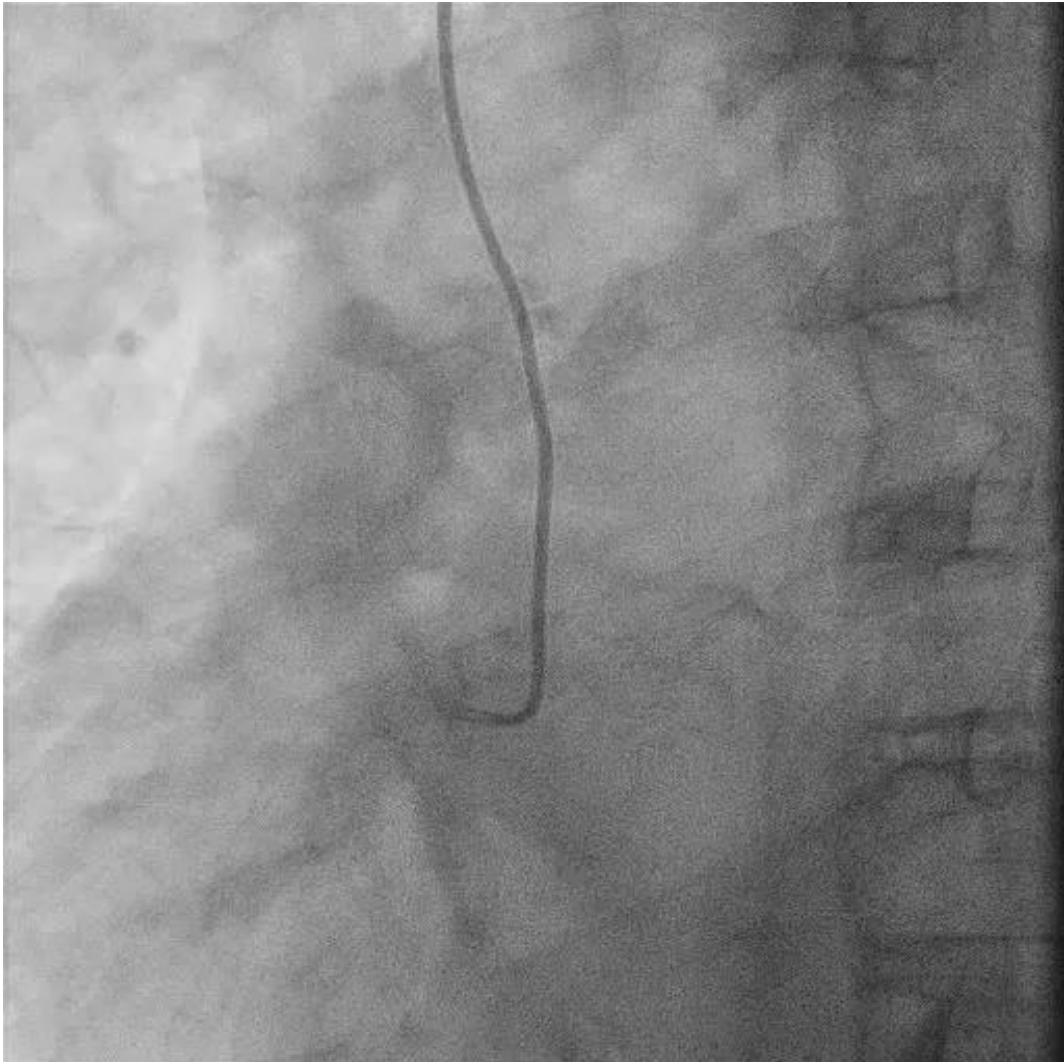
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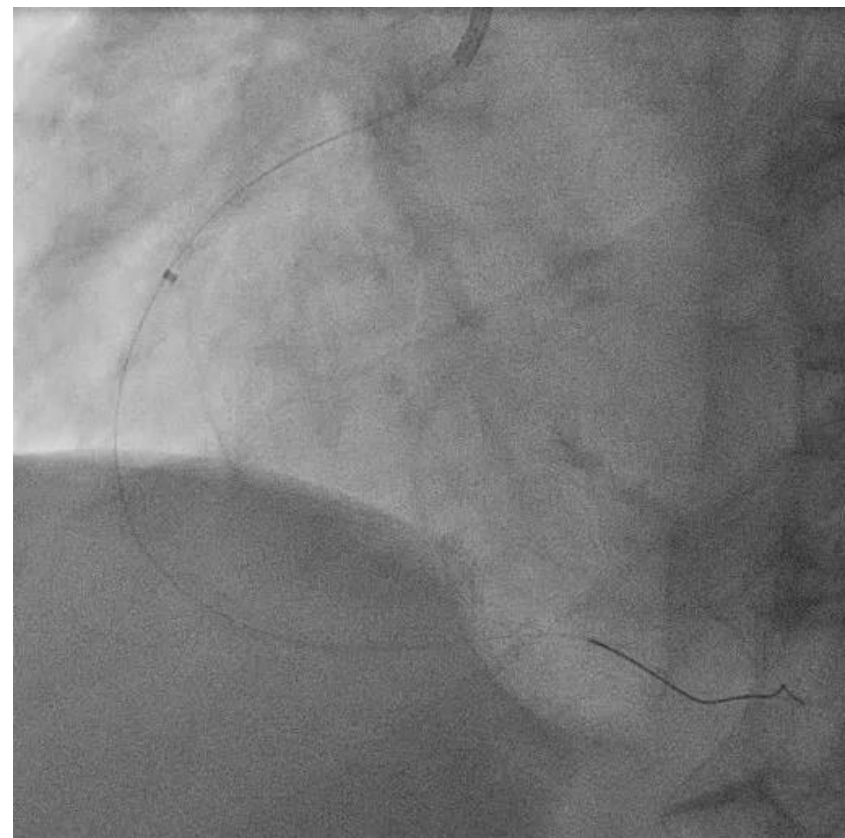
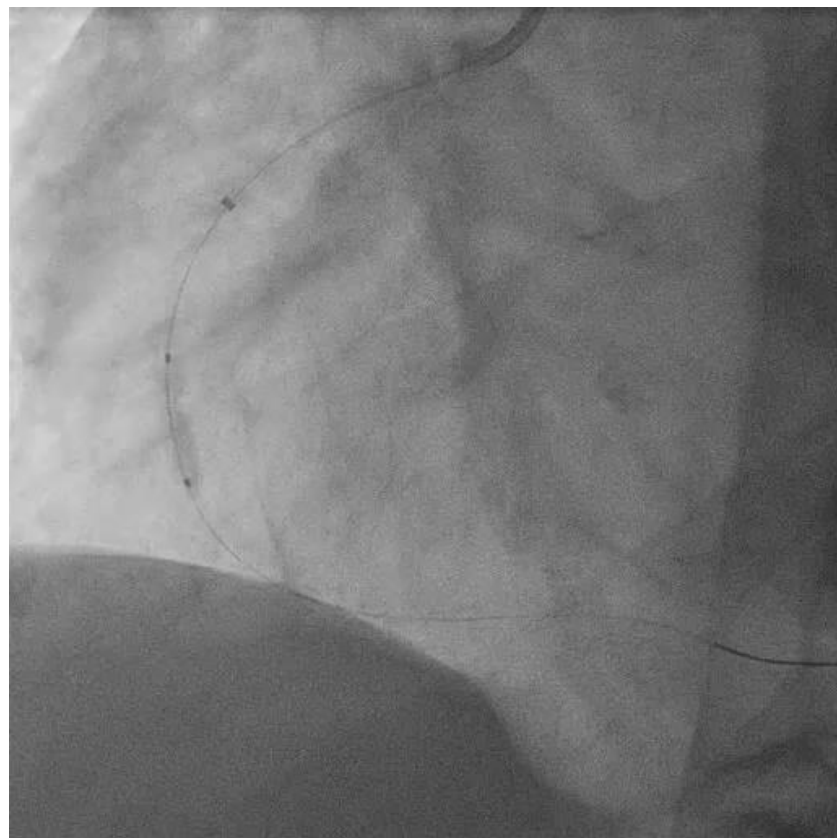
RCT

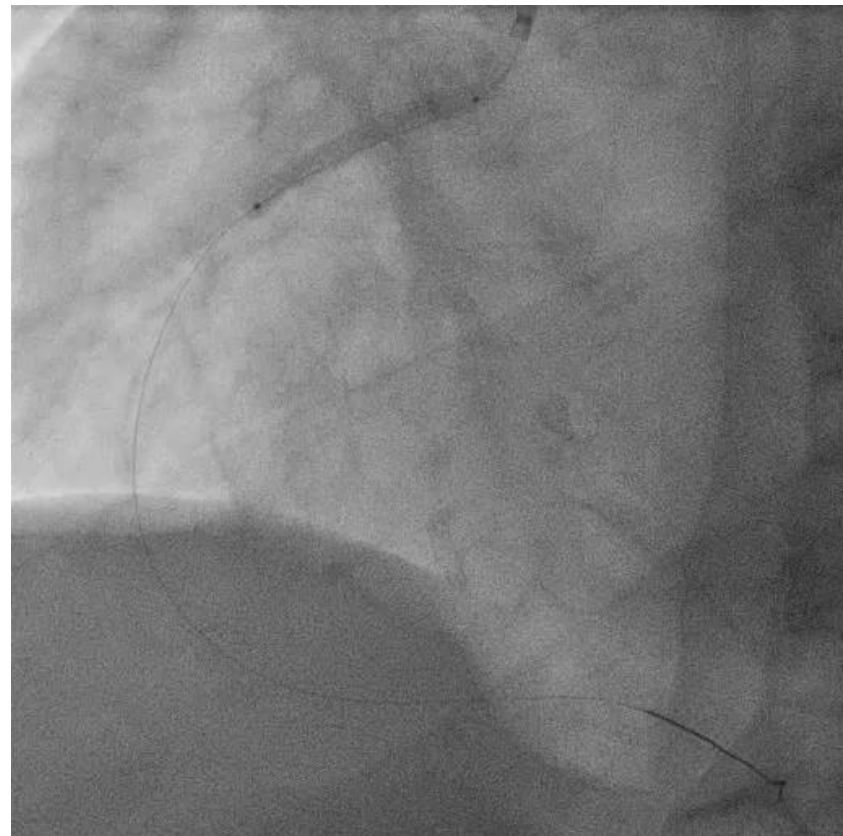
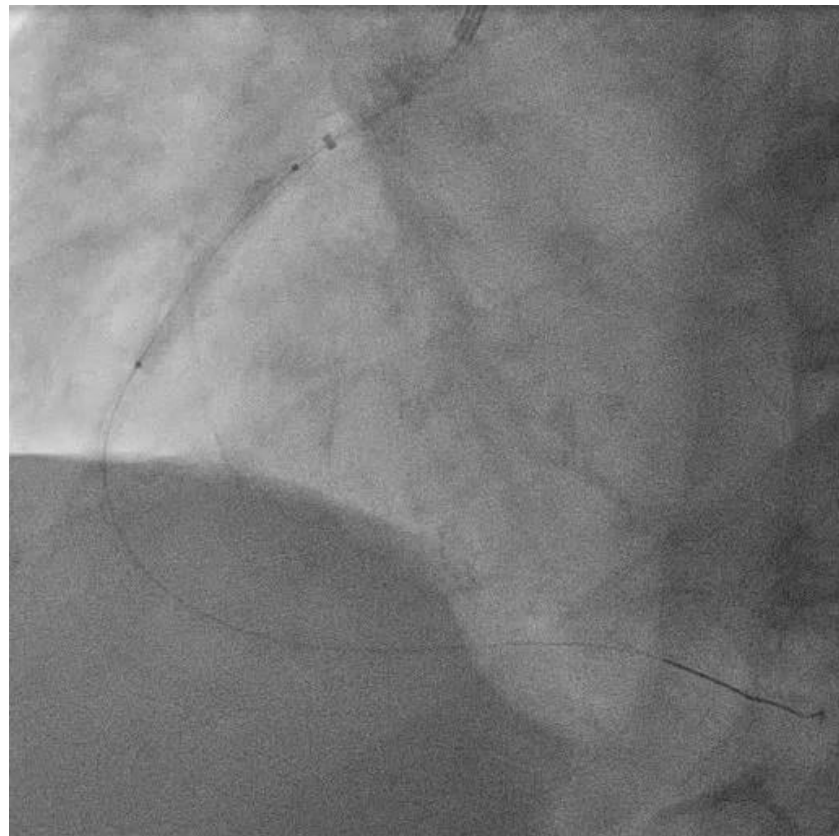
**Calcium debulking** (IVL, RA, OA) is recommended in case of moderate-to-severe calcification<sup>98,99</sup>

Exp

# Kazuistika 1









# Co je ještě mohu dovolit nechat?





**ACCEPTABLE RESULT FOLLOWING LESION PREPARATION**

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	Suboptimal 25-40%		
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<ul style="list-style-type: none"> <li>• TIMI 3 flow</li> <li>• No ECG changes</li> <li>• No chest pain</li> </ul>		No evidence-based threshold is currently available <ul style="list-style-type: none"> <li>• Pd/Pa &gt;0.90<sup>137</sup></li> <li>• QFR/FFR &gt;0.80<sup>9</sup></li> </ul> Exp	



**DCB**

**SHORT DELIVERY TIME** <2 minutes<sup>9</sup> ■

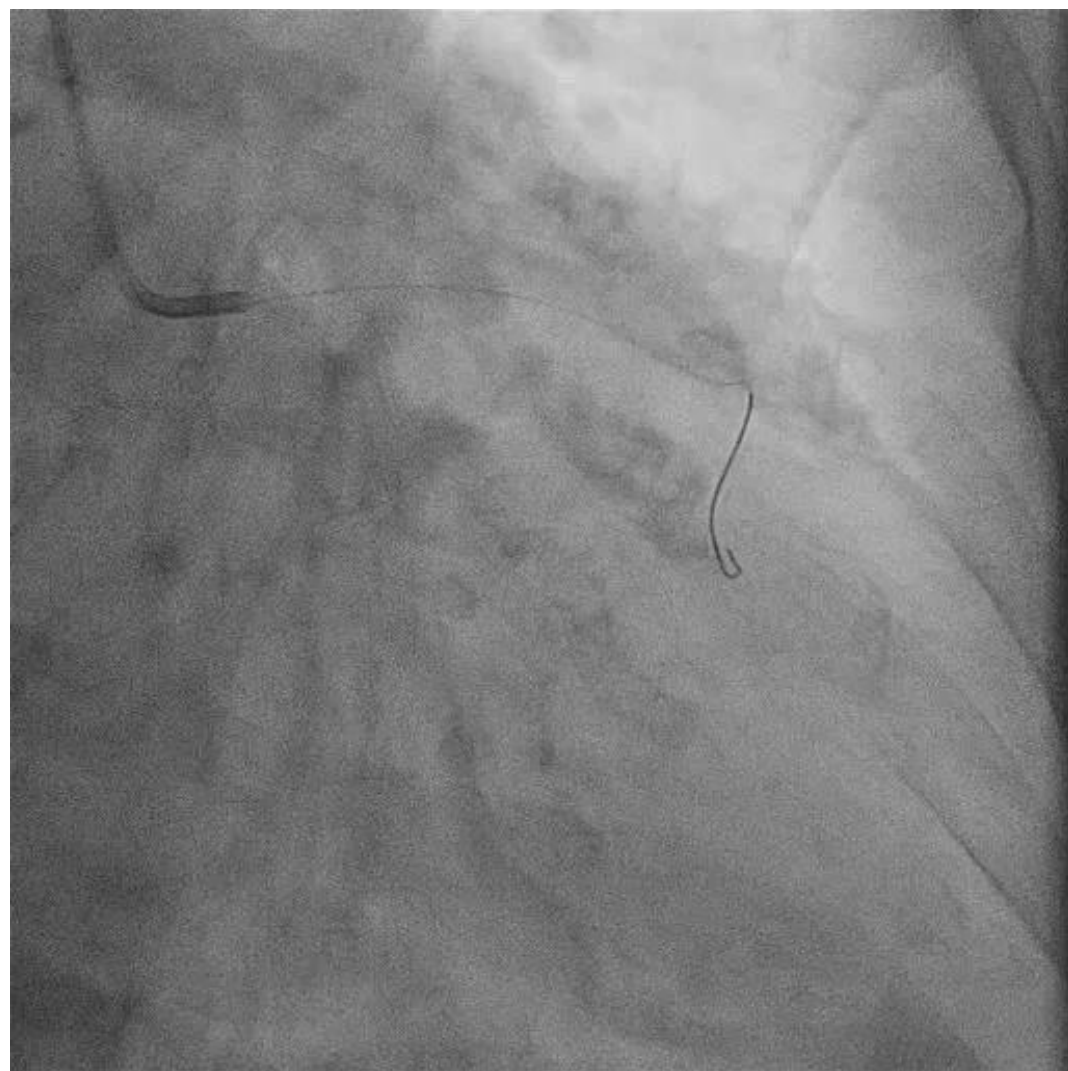
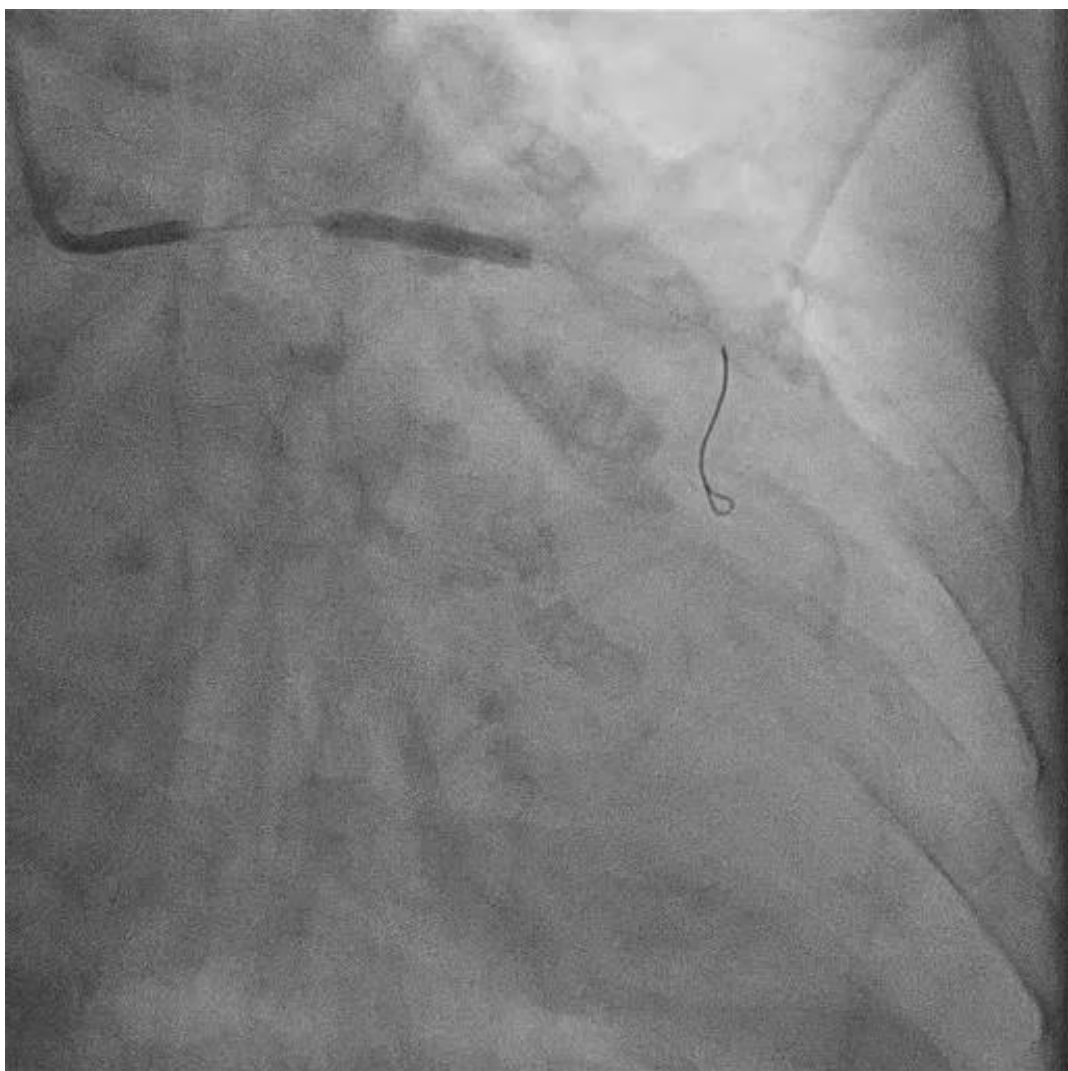
**LONG INFLATION TIME** ≥60 seconds<sup>134,135</sup> Exp

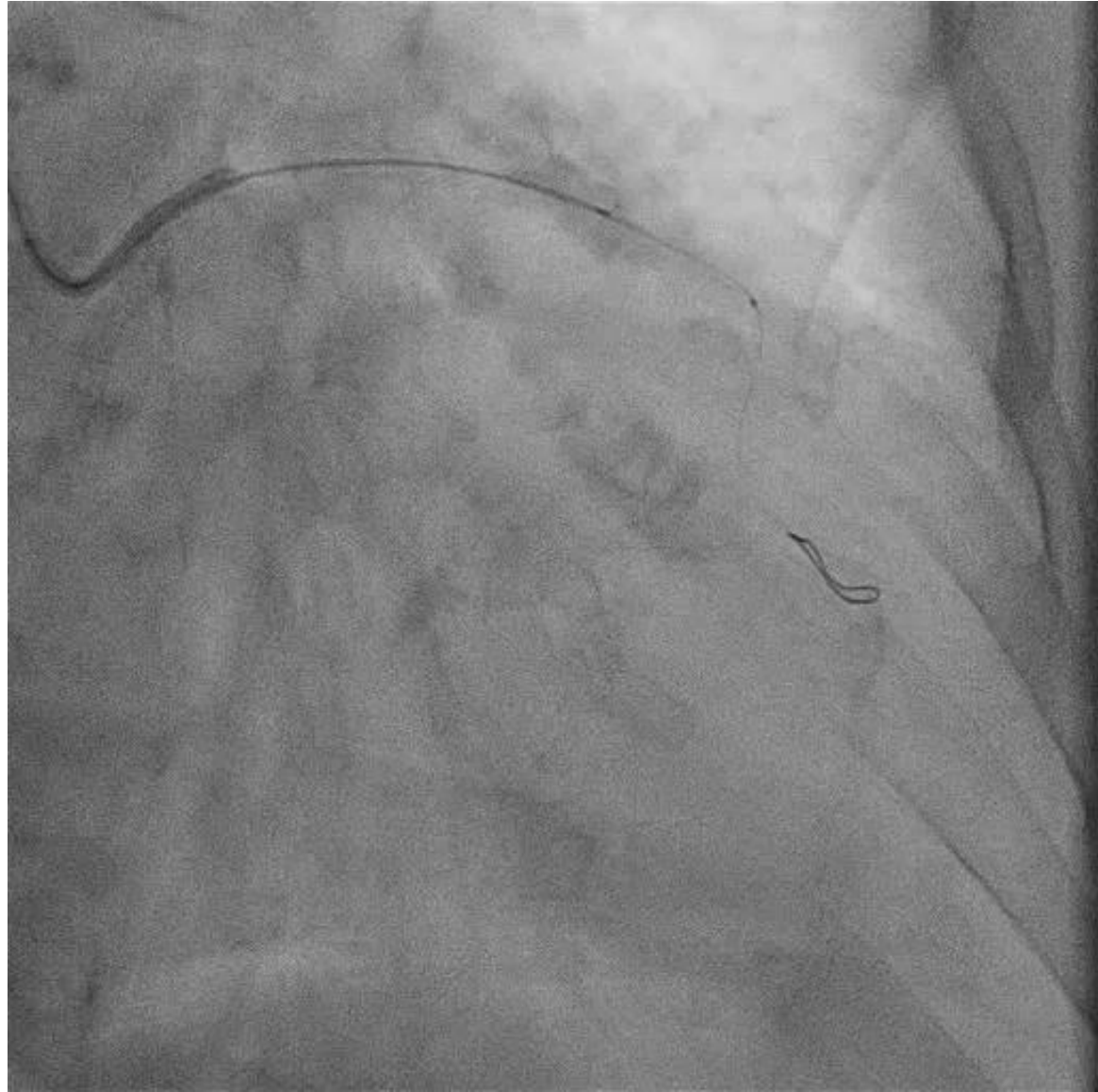
**BAIL-OUT DES**

**FURTHER LESION PREPARATION**

# Kazuistika 2









Morphology

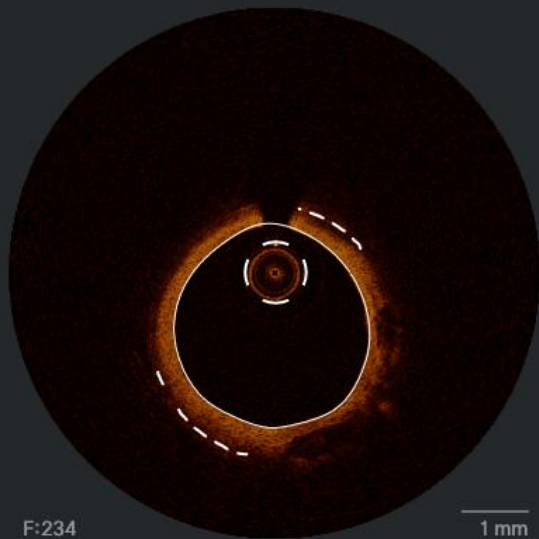
**Sizing**

Deployment

Review



Proximal Ref.

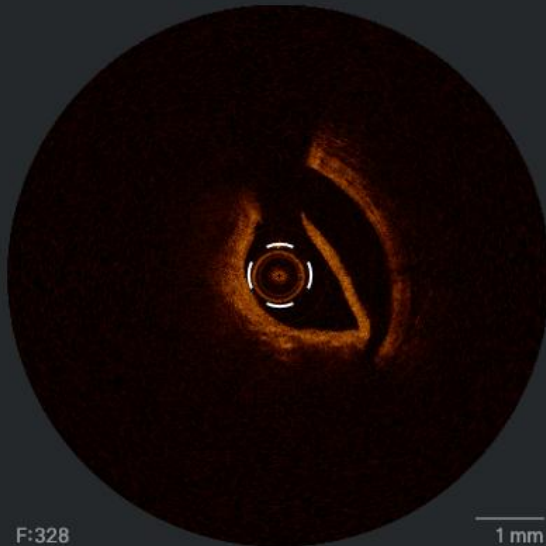


F:234

1 mm

EEL **3.72** mm

Lumen **2.95** mm



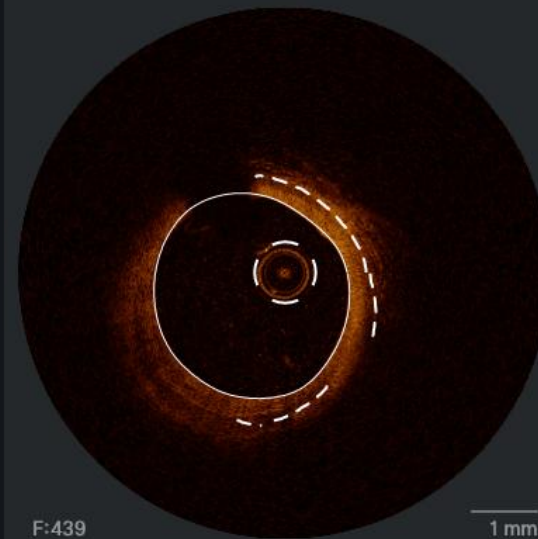
F:328

1 mm

EEL **-.-.** mm

Lumen **2.18** mm **3.75** mm<sup>2</sup>

Distal Ref.



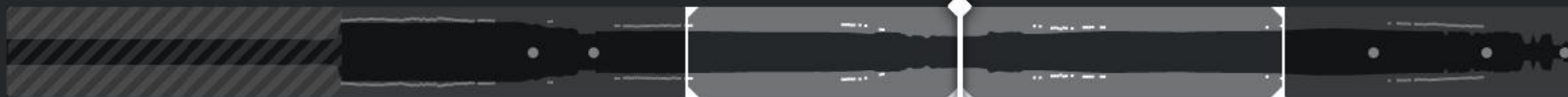
F:439

1 mm

EEL **3.68** mm

Lumen **3.00** mm

P



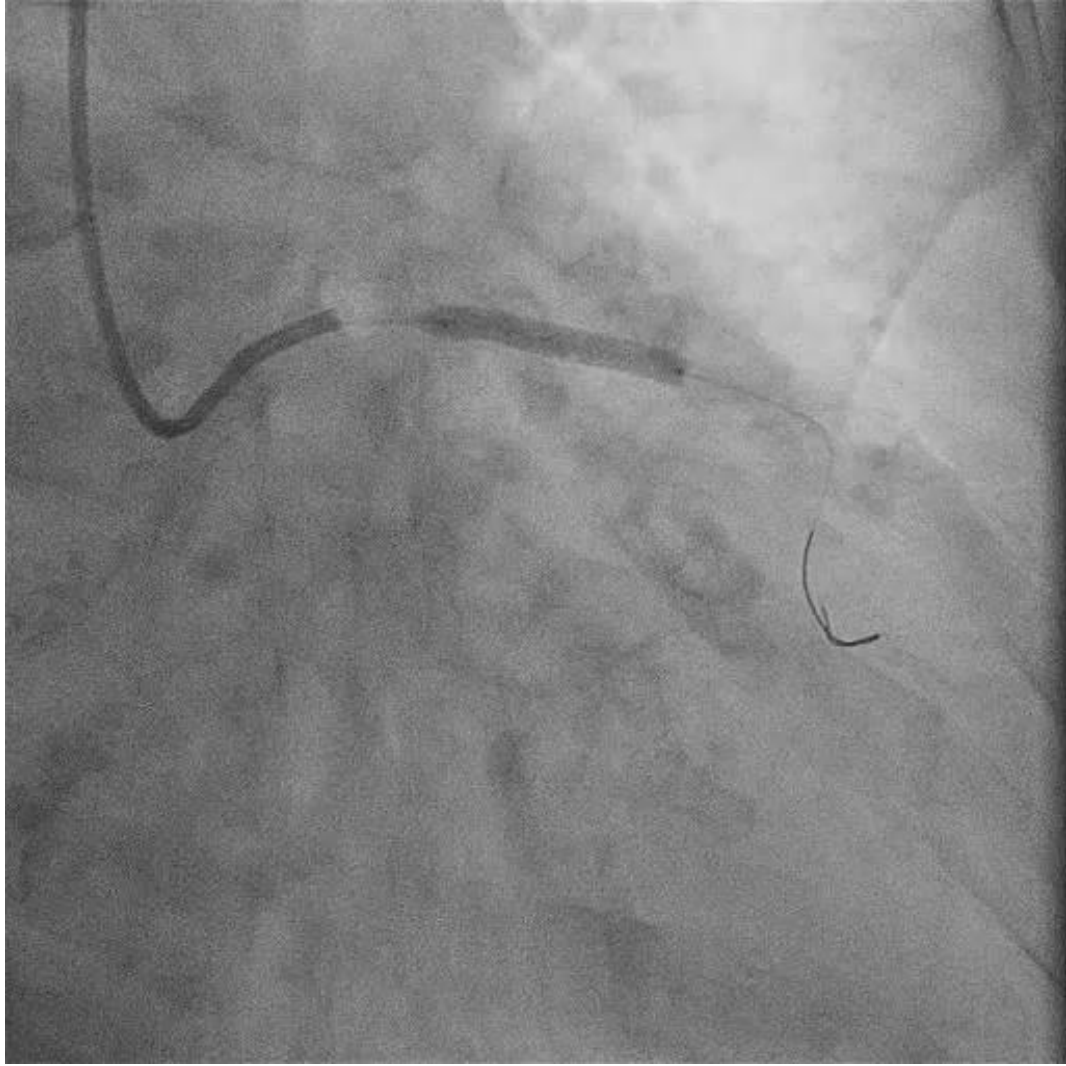
D

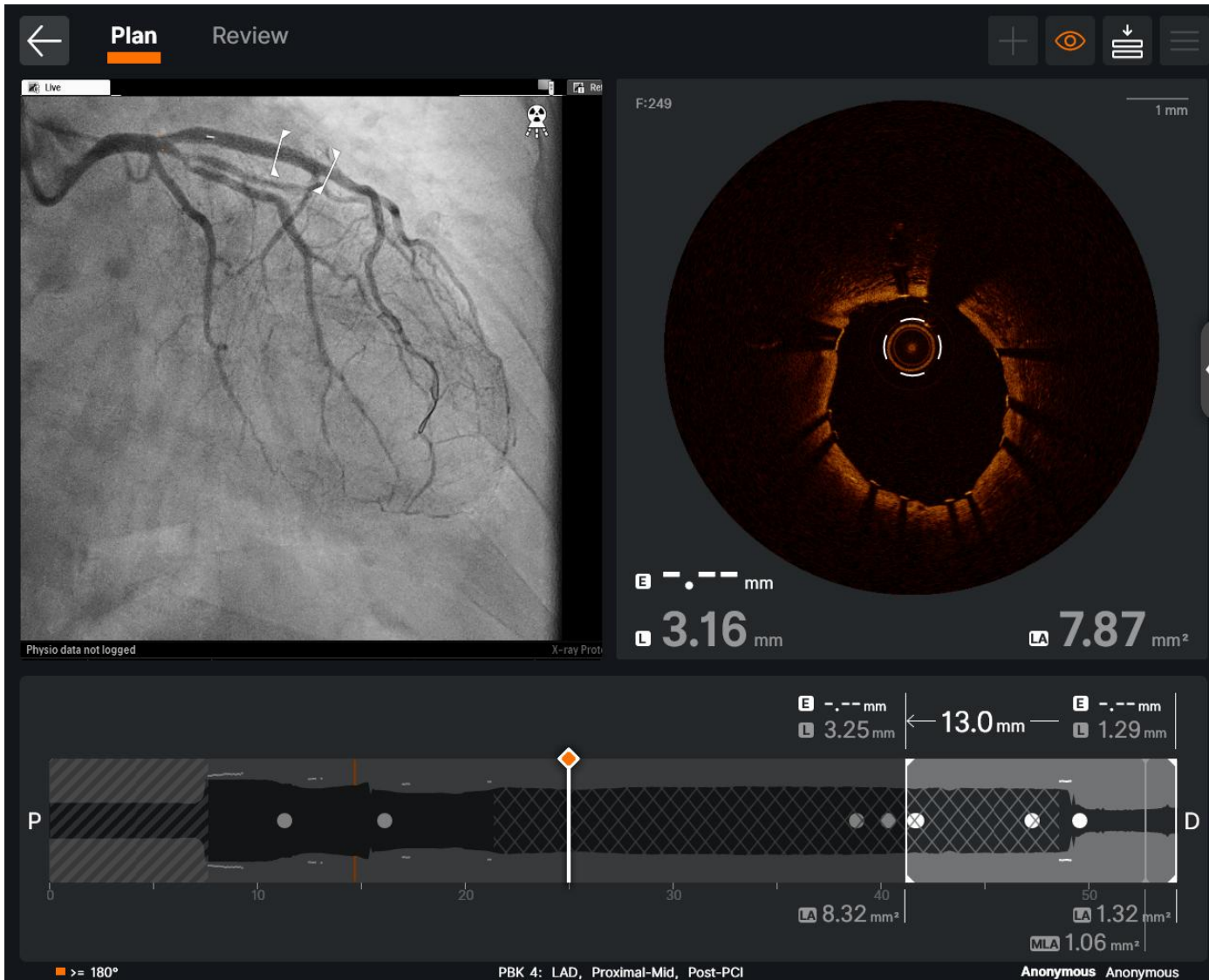
20.6 mm

■ >= 180°

PBK2: LAD, Proximal-Mid, Pre-PCI

Anonymous Anonymous





JACC STATE-OF-THE-ART REVIEW

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# Take-home points

- Adekvátna príprava lézie – základ úspechu
- Recoil, reziduálna stenóza  $\geq 30\%$ , limitovaný tok – bail-out stenting
- Technické aspekty - absencia tvrdých dát



**Děkuji za  
pozornost!**



AGEL

Nemocnice AGEL  
Třinec-Podlesí



Nemocnice AGEL  
Třinec-Podlesí

- LABORATORNÍ DIAGNOSTIKA
- ← INTERNÍ KLINIKA
- ← POKLADNA



# References

- 1 - CIARDETTI, Niccolò, et al. Drug-Coated Balloons in the European Registry of Chronic Total Occlusion: The ERCTO Registry. *Cardiovascular Interventions*, 2025, 18.18: 2209-2221.
- FEZZI, Simone, et al. Indications for use of drug-coated balloons in coronary intervention: academic research consortium position statement. *Journal of the American College of Cardiology*, 2025, 86.15: 1170-1202.
- FEZZI, Simone, et al. Definitions and Standardized Endpoints for the Use of Drug Coated Balloon in Coronary Artery Disease: Consensus Document of Drug Coated Balloon Academic Research Consortium. 2024.