Klinický profil a osud nemocných s bioresorbovatelným hořčíkovým stentem

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NEMOCNICE PARDUBICKÉHO KRAJE
PARDUBICKÁ NEMOCNICE

AGEL Kardiologické centrum

Revoluce v intervenční kardiologii

1977 Andreas Gruntzig (první angioplastika)

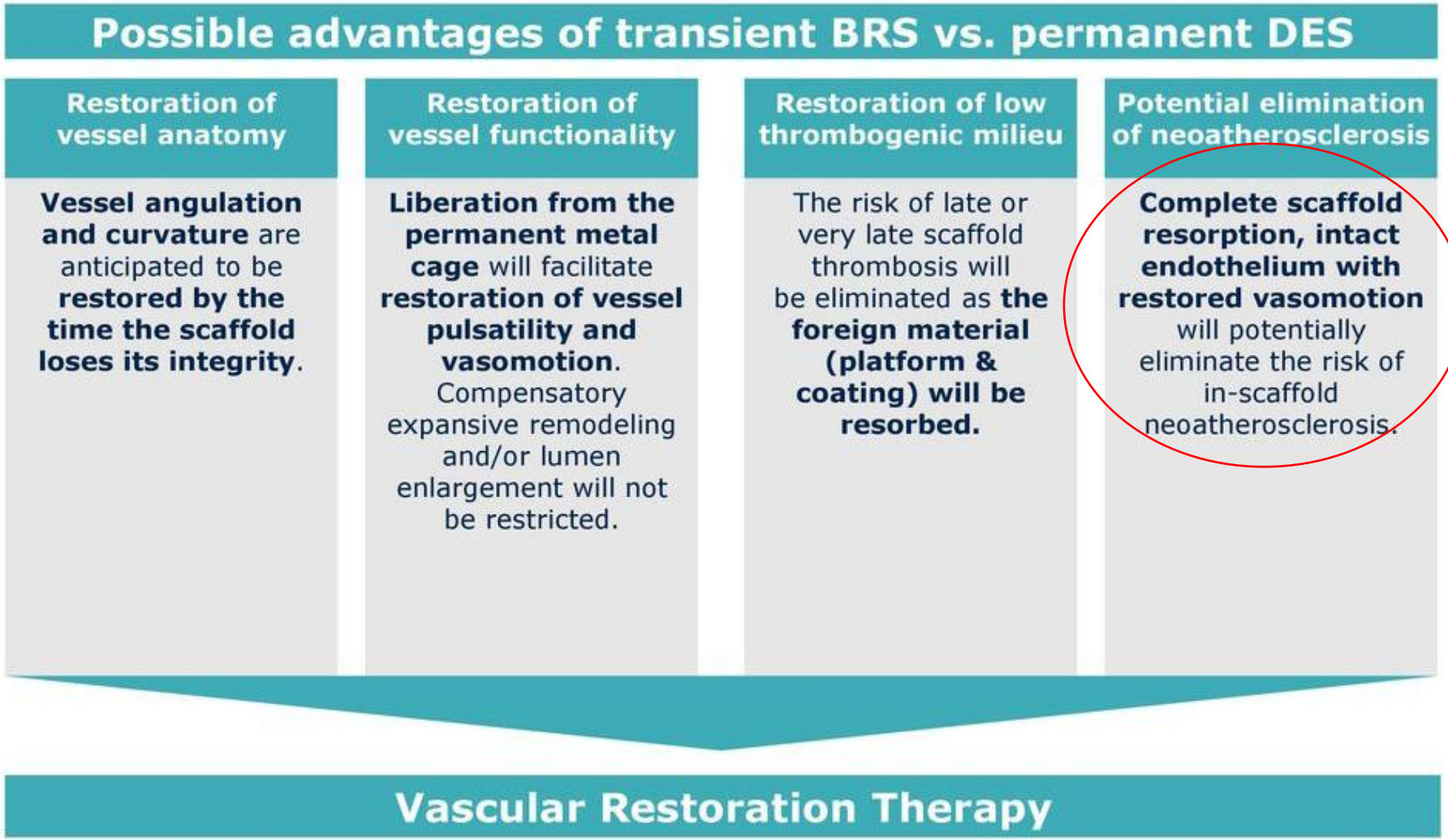
1986 Sigwart and Puel (první implantace stentu)

1999 Eduardo Sousa (první implantace drug eluting stentu)

2011 Schválení Absorb BVS (bioresorbable vascular scaffold) v Evropě
fourth revolution in interventional cardiology

Javaid Iqbal Julian Gunn Patrick W. Serruys
British Medical Bulletin, Volume 106, Issue 1, 1 June 2013, Pages 193–211

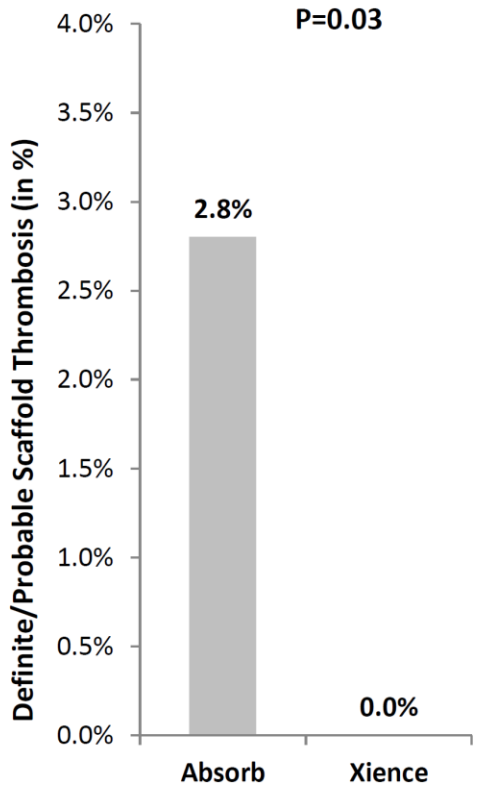
Proč implantovat BVS?



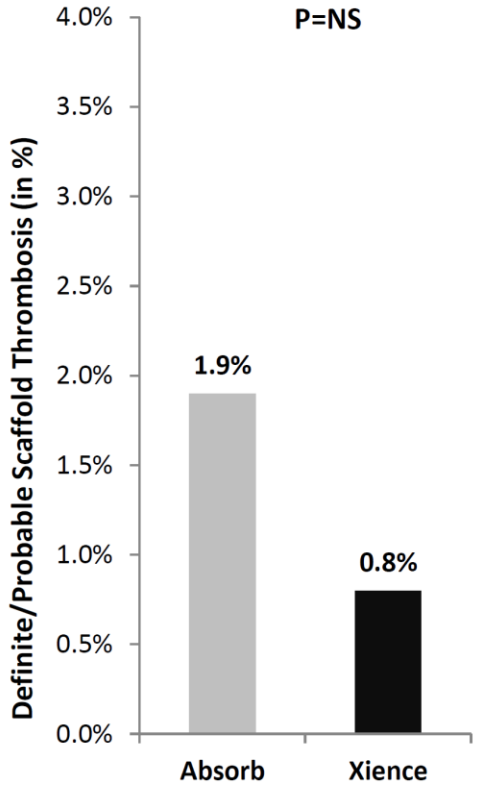
Absorb BVS

Recent studies show increased thrombosis tendency in BVS vs DES.
Thrombosis in general however has multifactorial causes, thick strut design being one of them

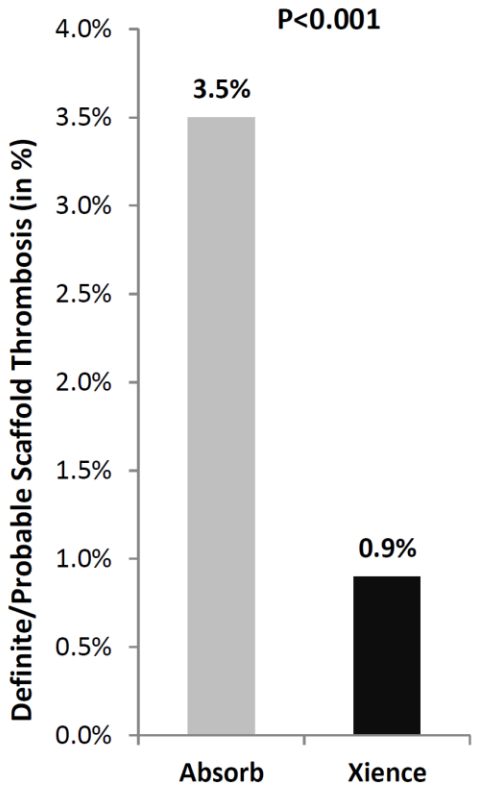
ABSORB II – 3-year data[1]



ABSORB III – 2-year data[2]

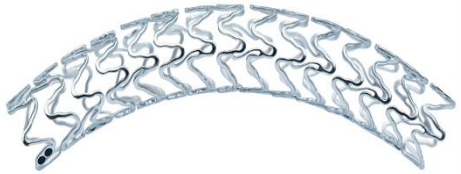


AIDA – 2-year data[3]

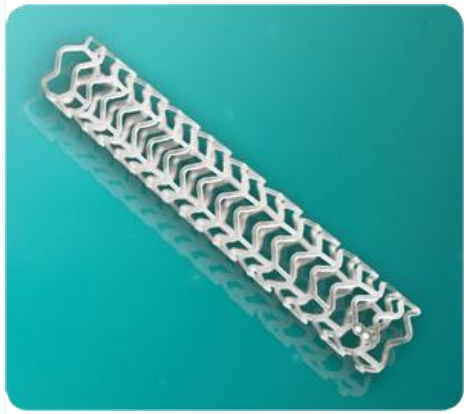


1) Adapted from Serruys P. et al., The Lancet 2016; 388(10059):2479-2491
2) Adapted from Ellis S.G.oral abstract presentation at ACC 2017
3) Adapted from Wykrzykowska J.J. et al., New England Journal of Medicine 2017, published online ahead of print

Magmaris vs Absorb (GT1)

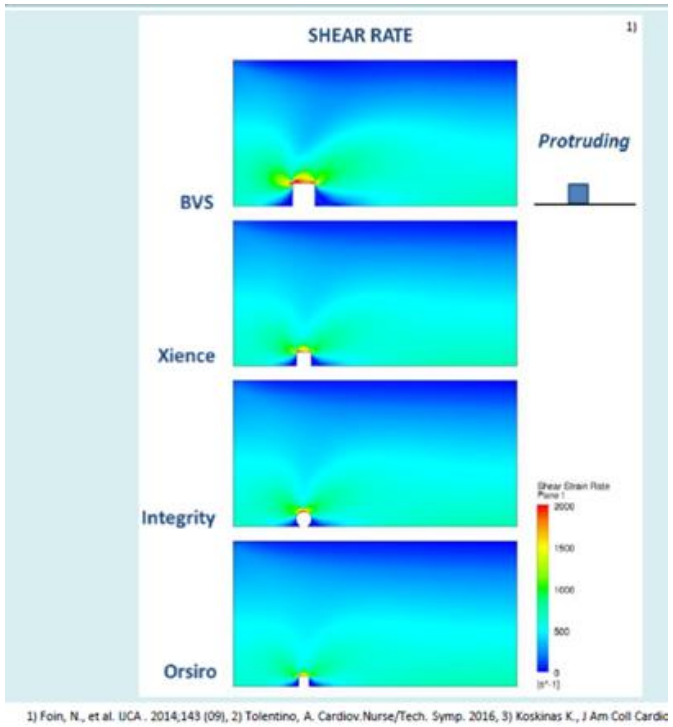


Product	Magmaris	Absorb (GT1)
Availability	2016: CE	2012;(2015): CE 2017: Withdrawn from market in Europe and Australia
Material	Magnesium	PLLA
Scaffolding time	Up to 3m	6-12m
Resorption time	1y	3-4y
Number of sizes	6	14
Diameter [mm]	3.0; 3.5	2.5; 3.0; 3.5
Length [mm]	15; 20; 25	8; 12; 18; 23; 28
Marker	Tantalum	Platinum
Struts thickness/width [µm]	150/150	150/180
Crossing profile [mm]	1.5	1.45
Drug	Sirolimus	Everolimus
Nb of implantations	> 1500 232 in studies	> 150'000 > 30'000 in studies



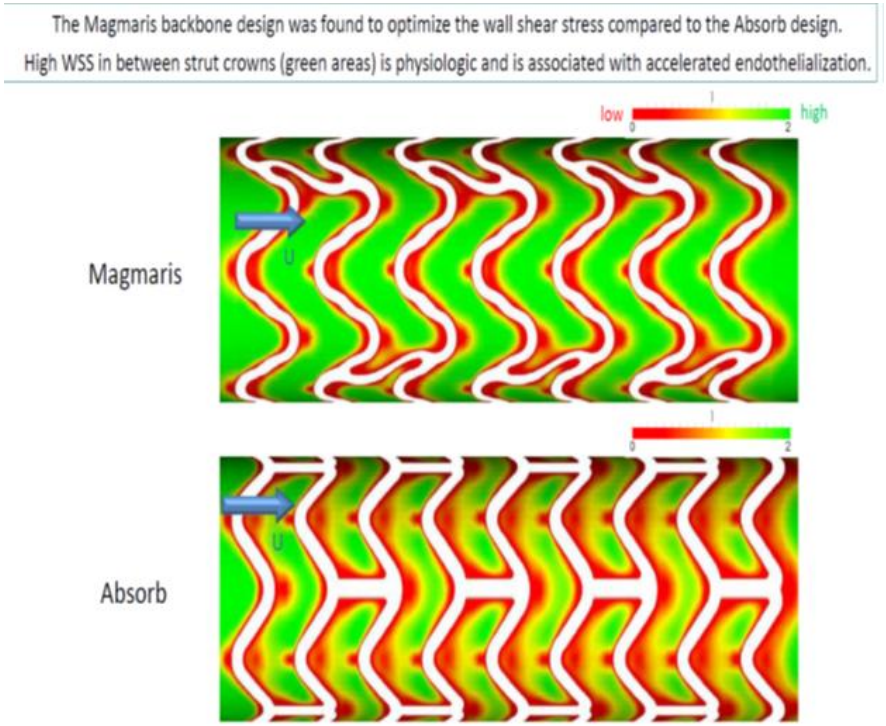
Stent struts

Velikost strutu



1) Foin, N., et al. IJCA . 2014;143 (09), 2) Tolentino, A. Cardiov.Nurse/Tech. Symp. 2016, 3) Koskinas K., J Am Coll Cardio

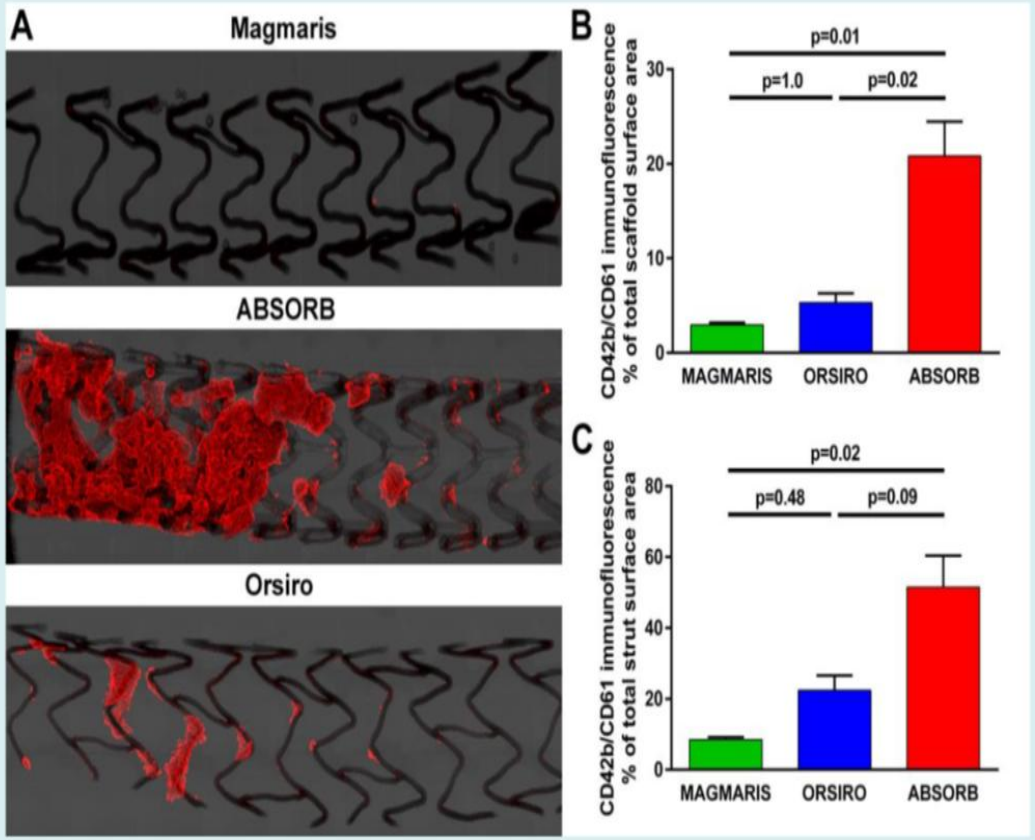
Strut design



Stent (kostra)

Platform
Mg, PPLA, Co-cr

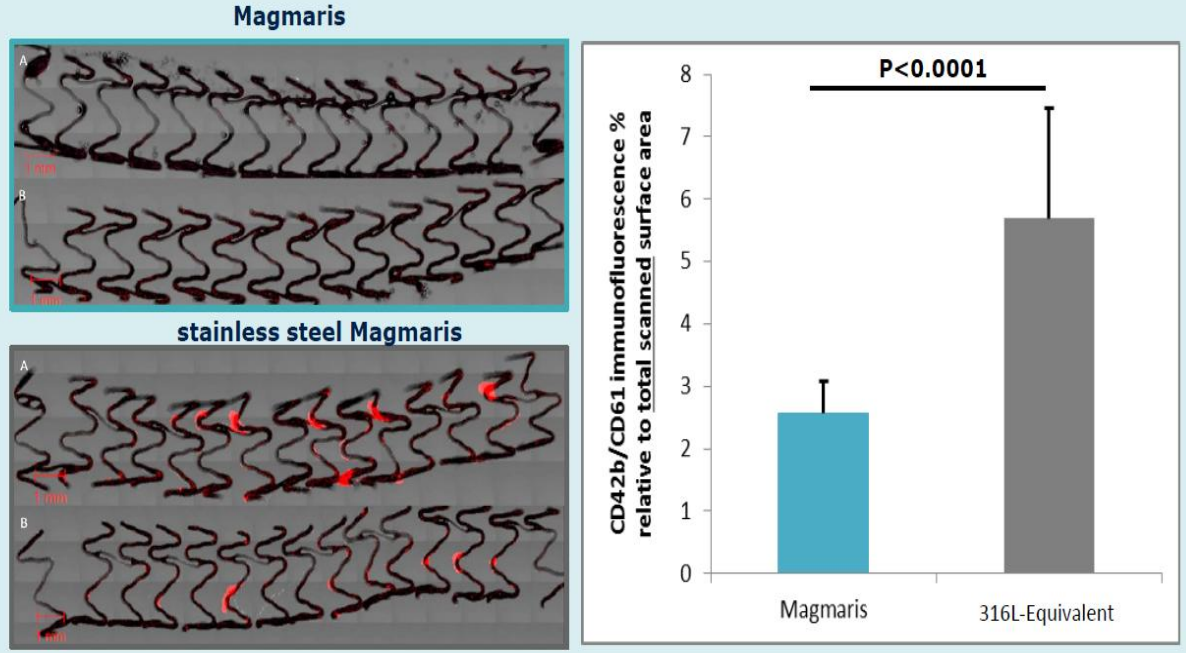
- Significantly less platelet coverage in Magmaris and Orsiro compared to Absorb



Waksman R. et al., In press Circulation Cardiovascular Intervention

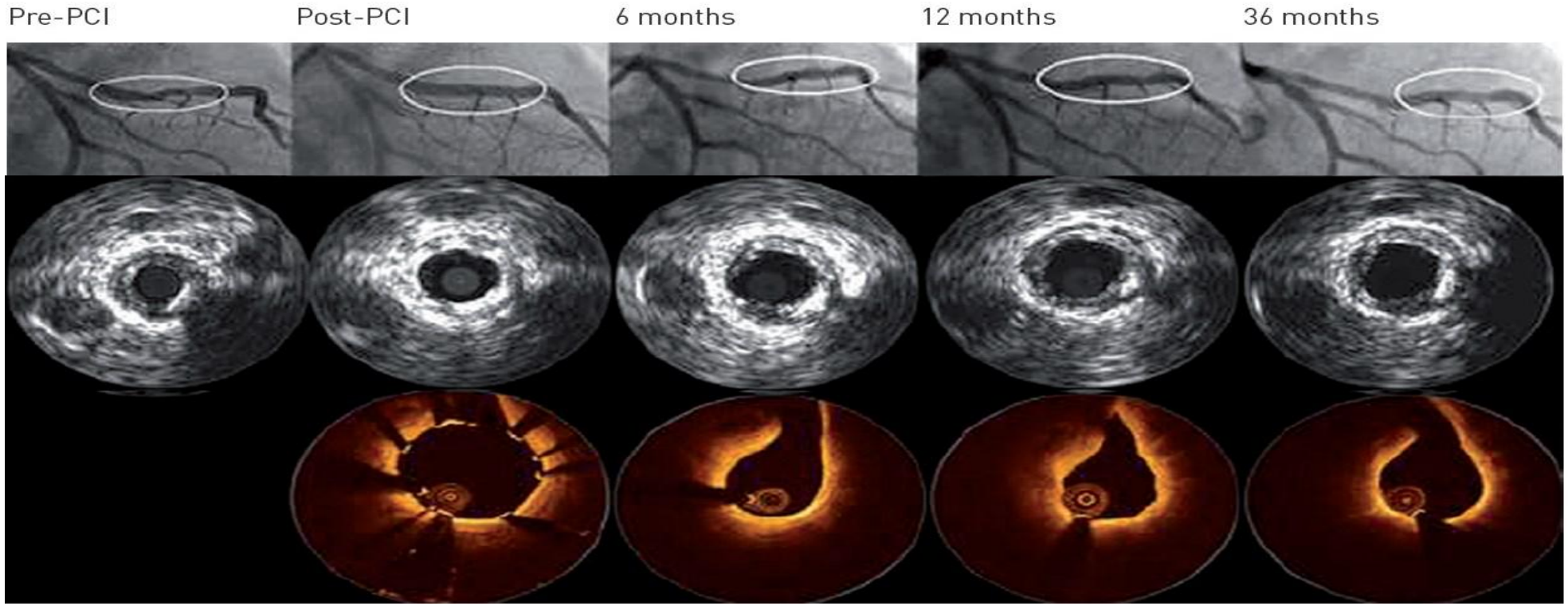
Mg kostra

- Significantly less platelet coverage in Magmaris compared to stainless steel Magmaris

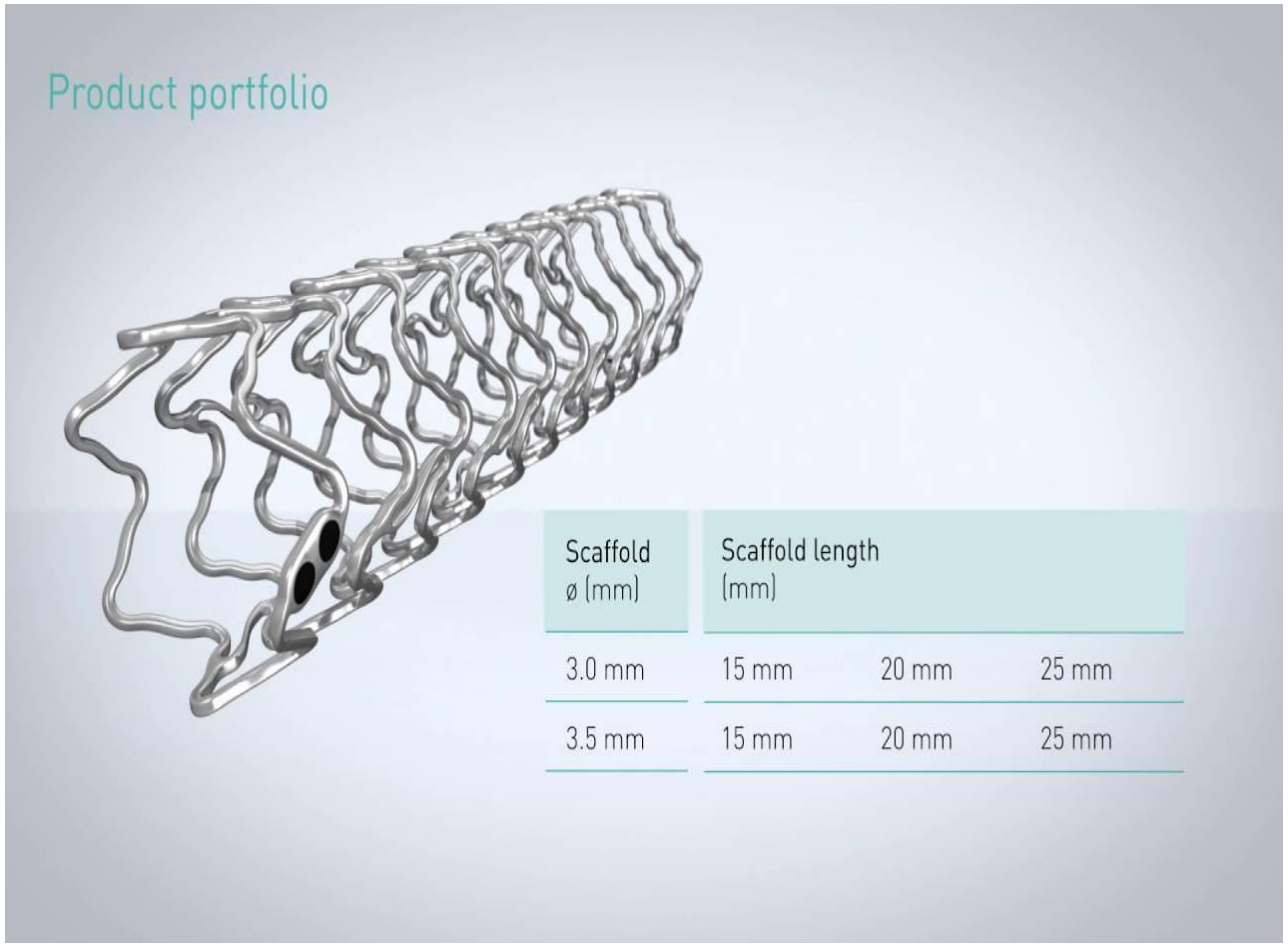


Vascular restoration therapy

Serial angiographic, IVUS and OCT of a patient implanted with Magmaris at 3-year follow-up



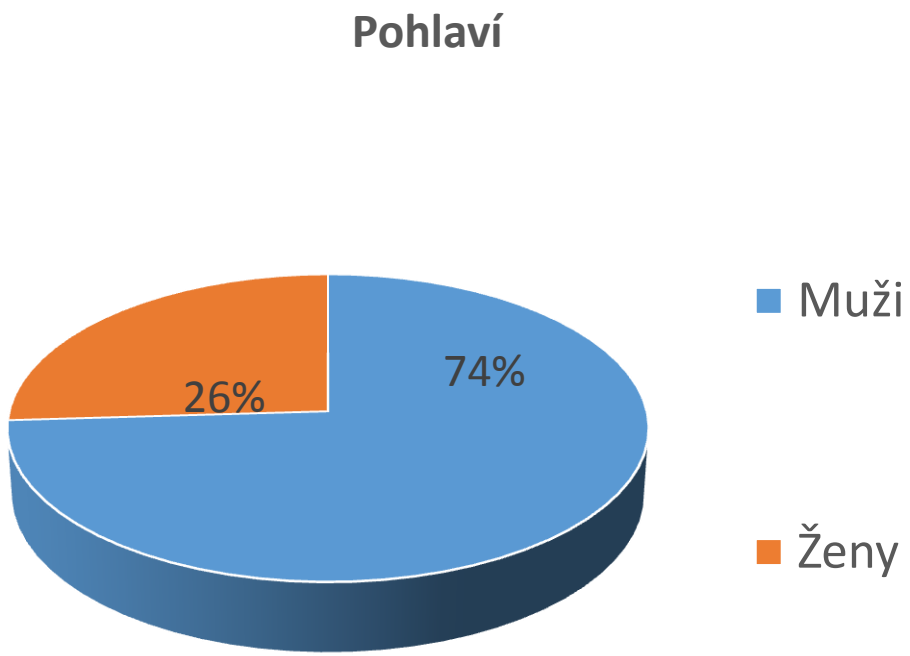
Magmaris



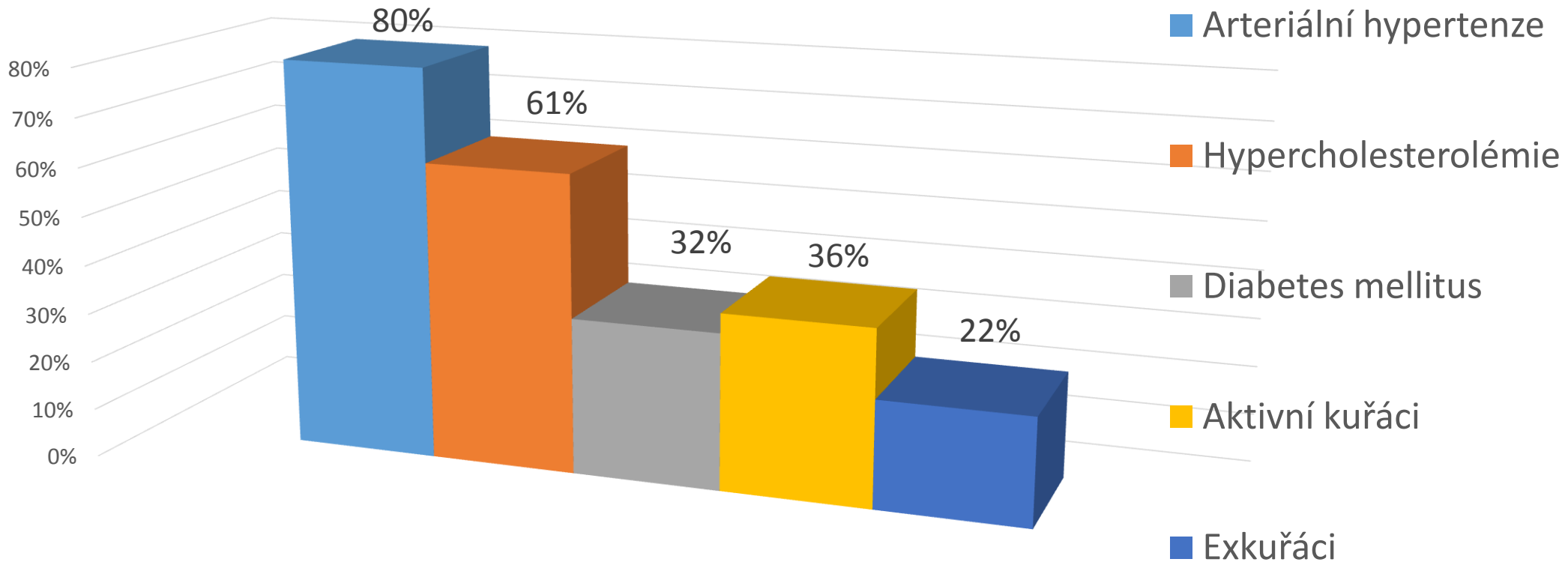
- bioresorbovatelný kovový stent
- sirolimus eluting (90 dní)
- 150 ug struts
- 12 měsíců 95 % resorbováno

Soubor pacientů

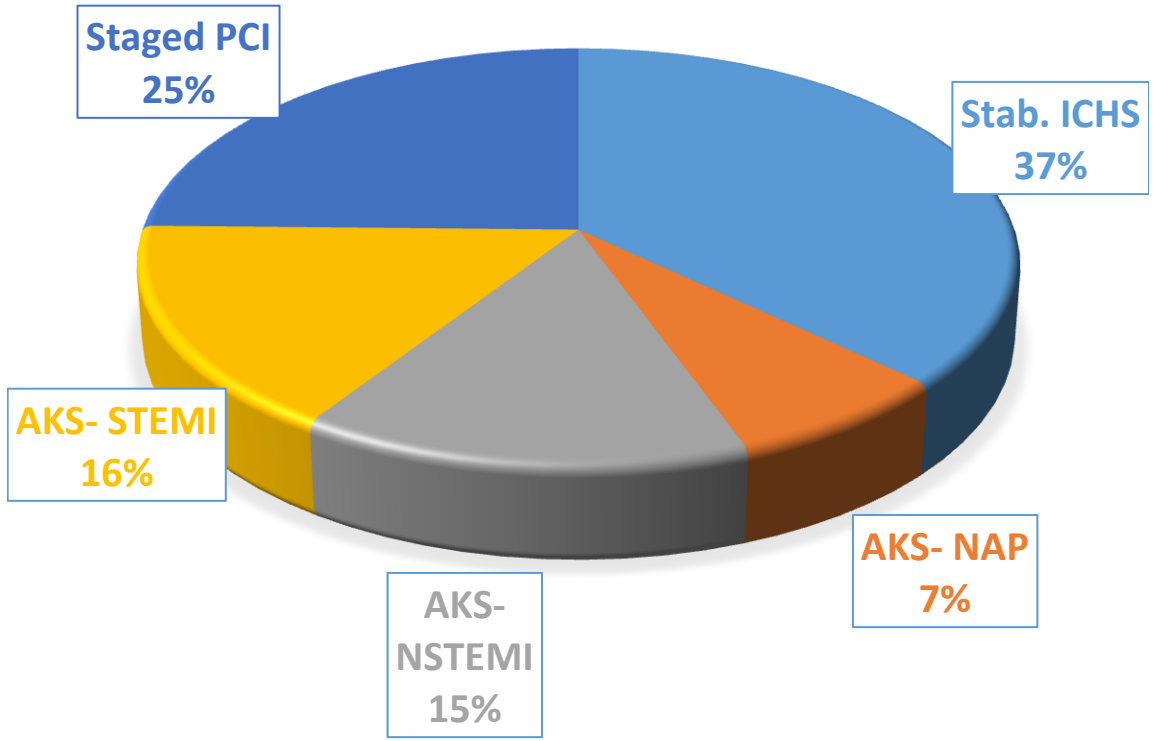
- v období 10 měsíců (3-12/2017) implantováno 87 stentů Magmaris u 81 pacientů
- průměrný věk 62 let (33 let – 87 let)
- prospektivní sledování pacientů

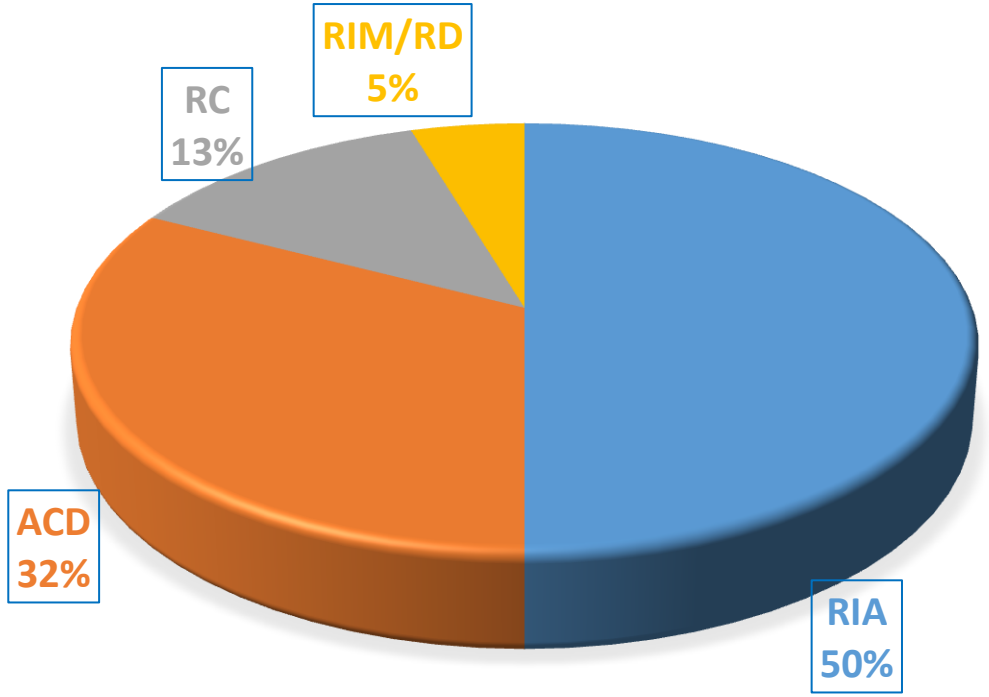


Rizikový profil pacientů

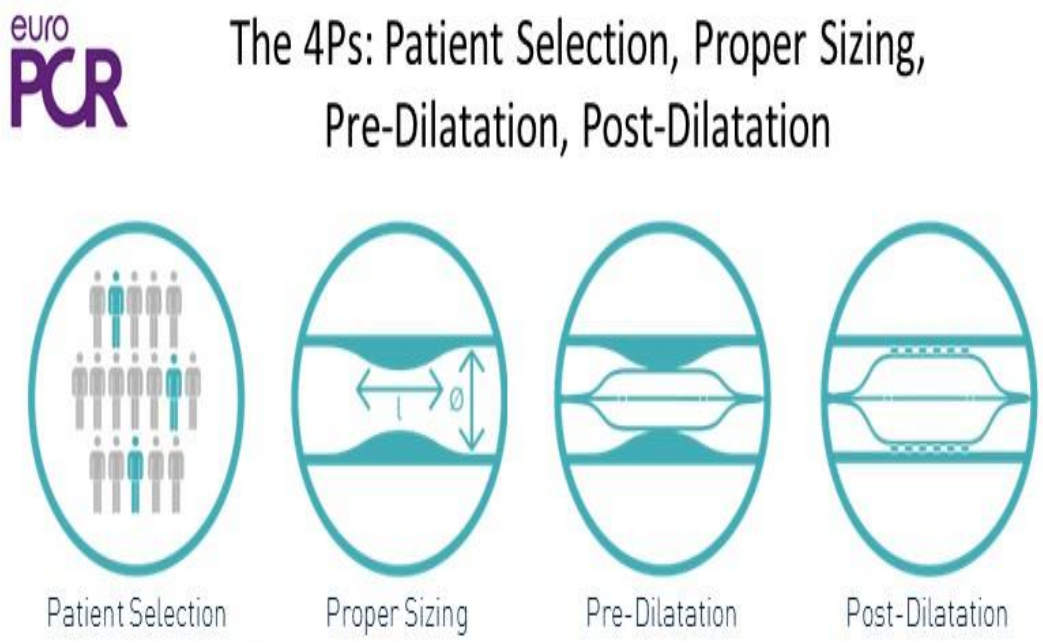


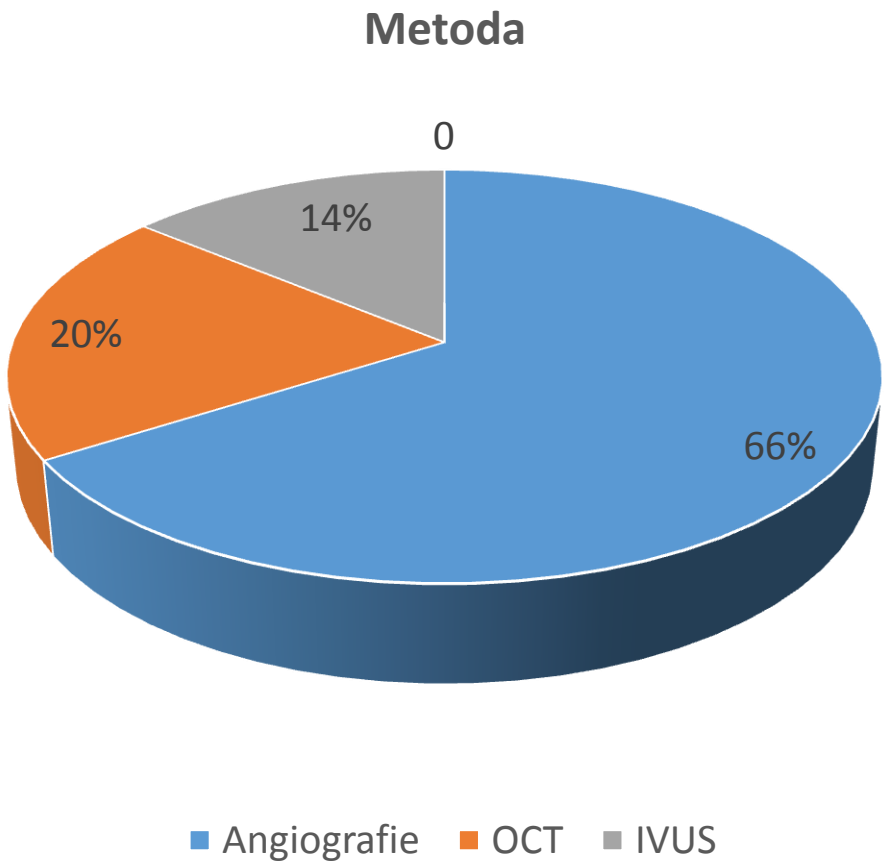
Indikace a intervenovaná tepna



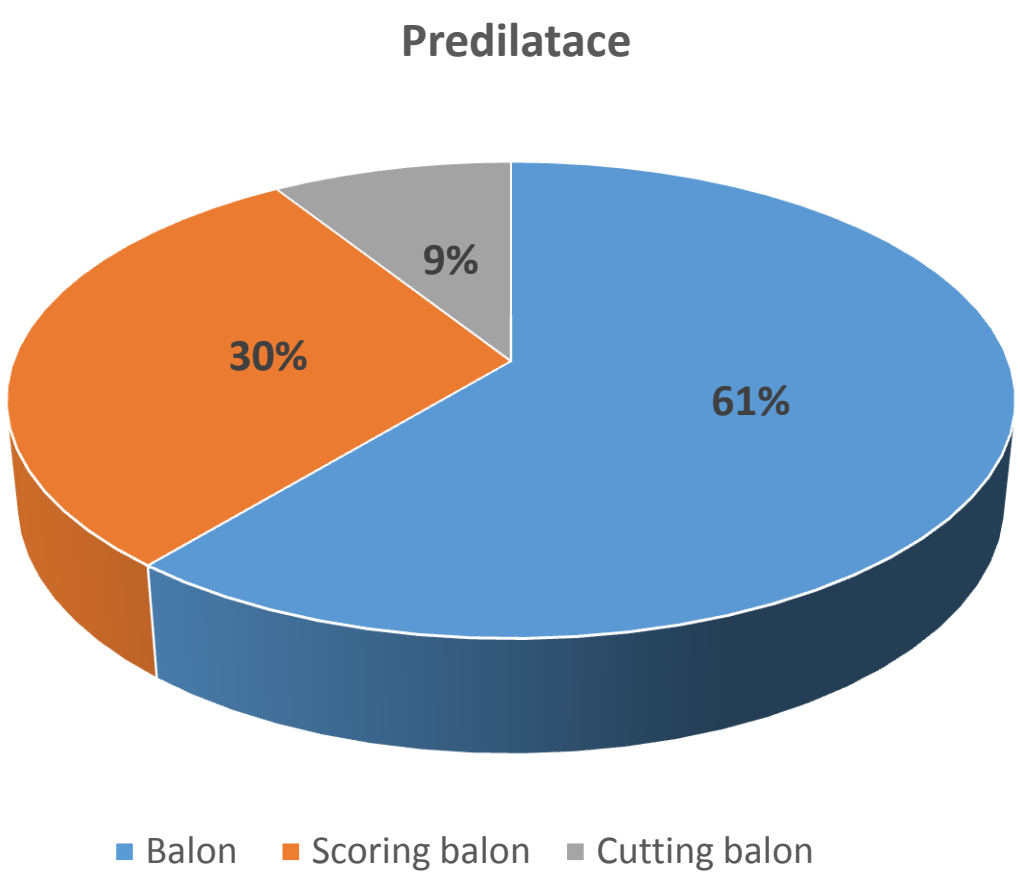


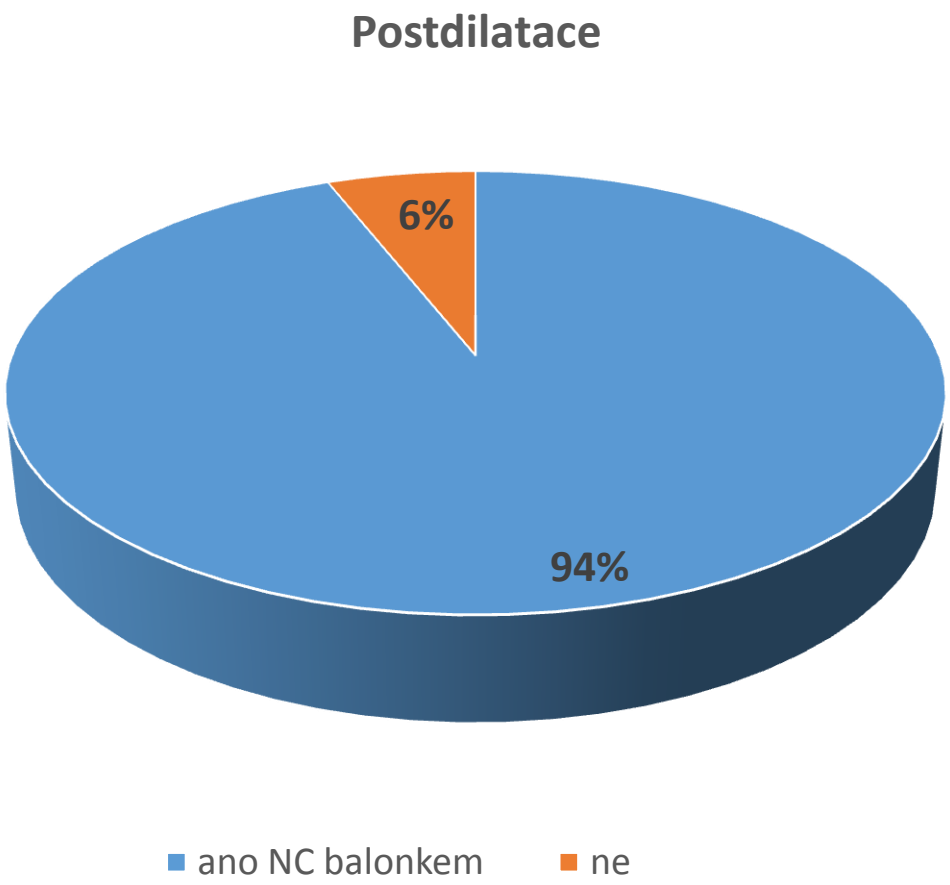
Perioperační zobrazovací metody





Periprocedurální aspekty

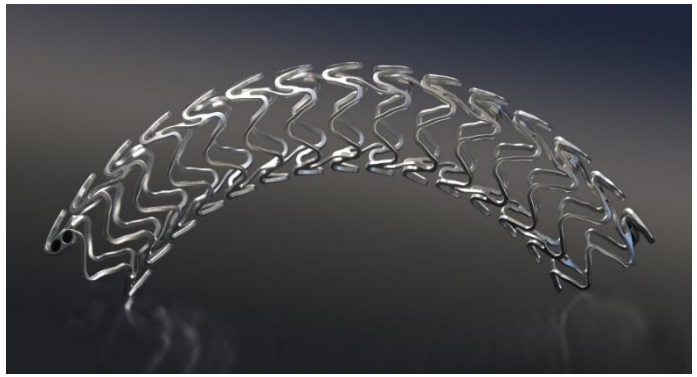


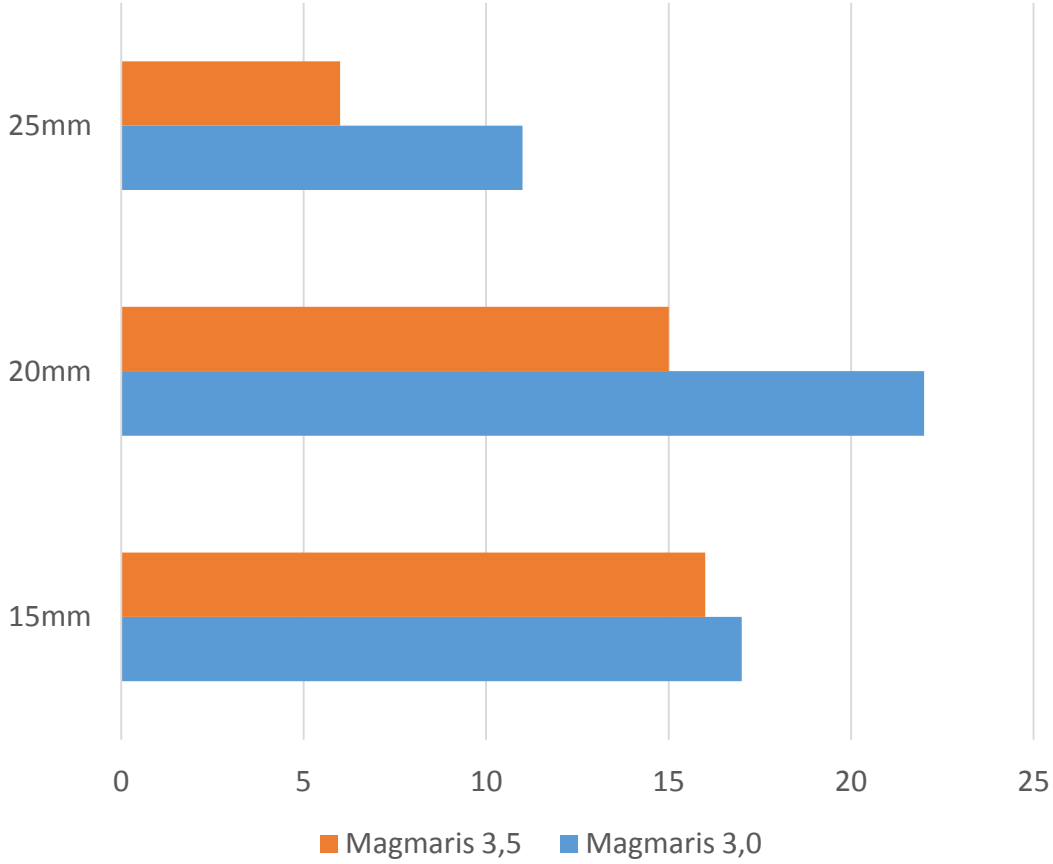


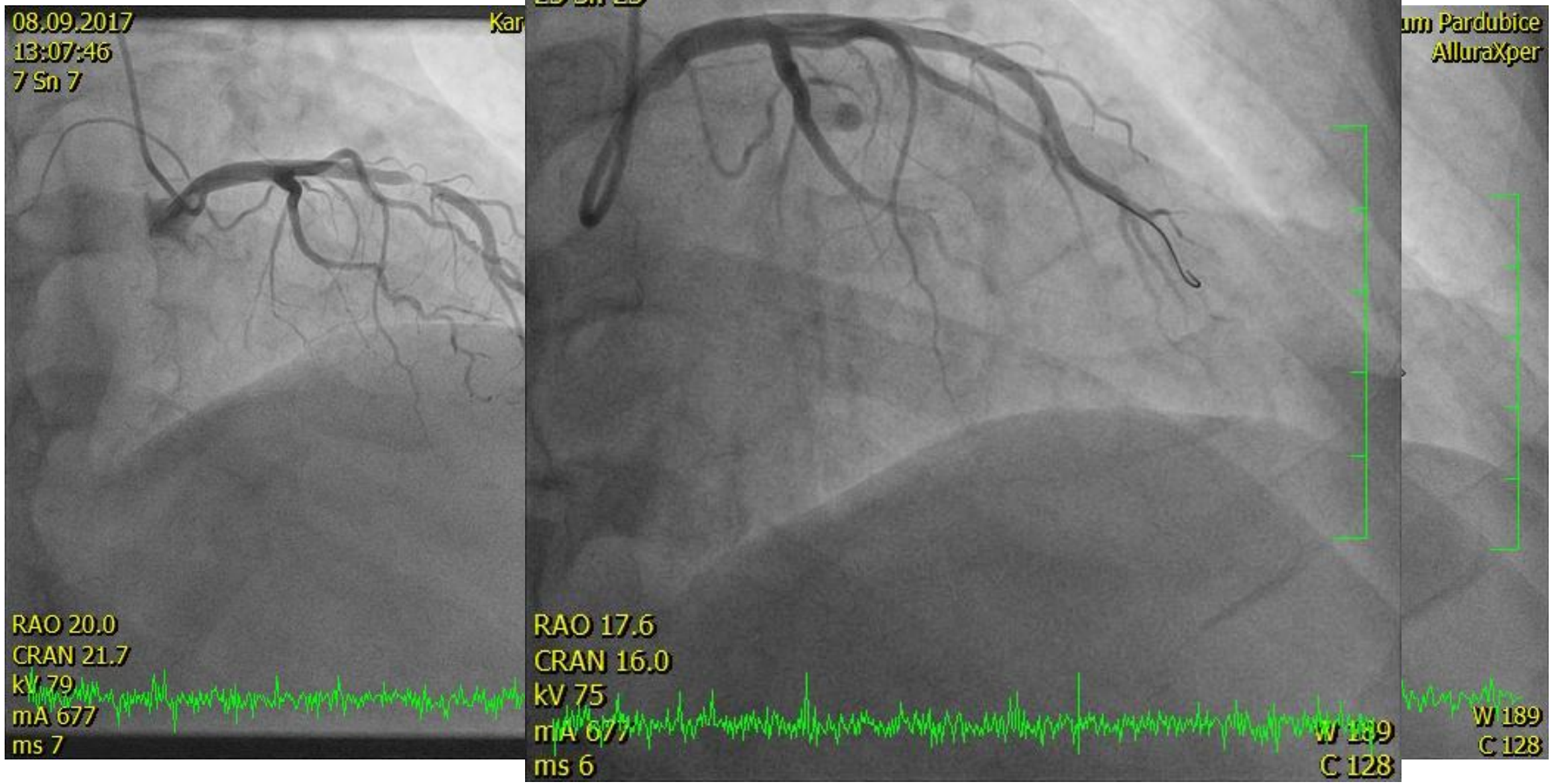
Rozměry implantovaných stentů

- periproceduralní úspěch 100 %
- komplikace: 3 pacienti
  edge disekce s nutnosti
  implantace dalšího stentu

(1 pacient periproceduralní IM)



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CRAN 21.7
kV 79
mA 677
ms 7
08.09.2017
13:34:12
23 Sn 23
Kardiocentrum Pardubice
AlluraXper
RAO 17.6
CRAN 16.0
kV 75
mA 677
ms 6
W 189
C 128

Sledování (3-12 měsíců)

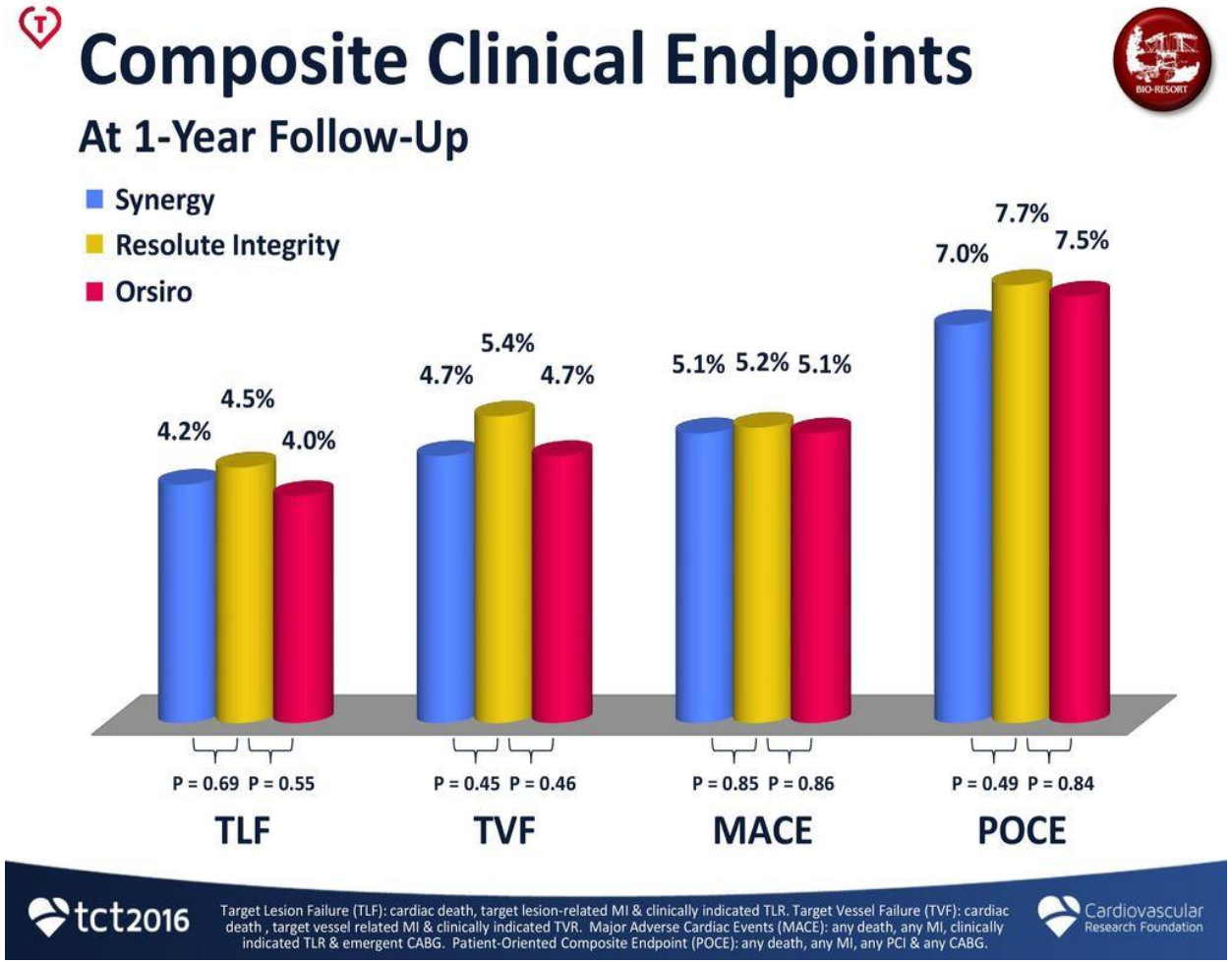
- prospektivní klinické a telefonické
- 50 % pacientů 12 měsíční sledování , 85 % 6 měsíční
- žádná akutní či subakutní trombóza stentu
- 4 pacienti s vynucenou revaskularizací

Target lession/vessel failure

- 2 pacienti target lession revascularization – ve stentu
  (underexpanze stentu, recoil)

- 2 pacienti target vessel revascularization – mimo stent
  (mismatch, IM při vysazení DAPT)

Srovnání s DES



- Target lession revascularization

2,45 %

- Target vessel revascularization

4,9%

Take home message

- správná indikace a výběr pacienta (life expectancy, inserce bypassu)
- důraz na optimální přípravu léze
- nízký prah pro zobrazovací metody (OCT , IVUS)
- mandatorní postdilatace vysokotlakým balonem
- DAPT 12 měsíců (6 měsíců minimum)