2. Livecase

- 62 Jahre, männlich (3-G.KHK, HLP, Nikotin (burning fingers)
- Stadium IIb, Gehstrecke < 50 Meter
- ABI rechts 0,5; links 0,75
- Procedere: Coss over PTA, subintimale vs. intravaskuläre Rekanalisation mit (Spot)stenting +/- DEB PTA

Peripheral CTO treatment – clinical experiences with rapid-exchange devices

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Karolinen-Hospital

Background

- There is growing evidence that long SFA and BTK lesions revascularisations can be performed safely with good primary and secondary patency rates
- Challenging situations in
  - Chronic limb ischemia
  - CTO with severe calcification

Rapid exchange / Monorail technique

Established in endovascular procedures

- Interventional cardiology for decades
- Endovascular therapy for carotid interventions
- Endovascular treatment of renal artery stenosis and visceral artery interventions

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PRO and CON of RX technique

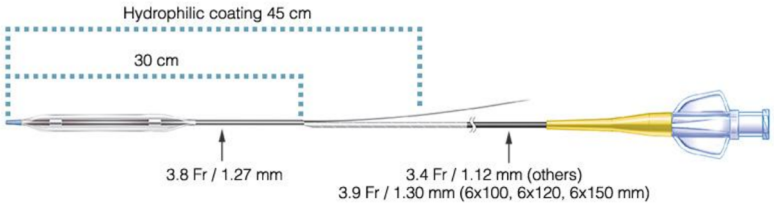
PRO

- Low crossing profile
- Short guide wires needed
- Fast exchange of devices
  - Maybe reduced radiation
  - Maybe saver for patients

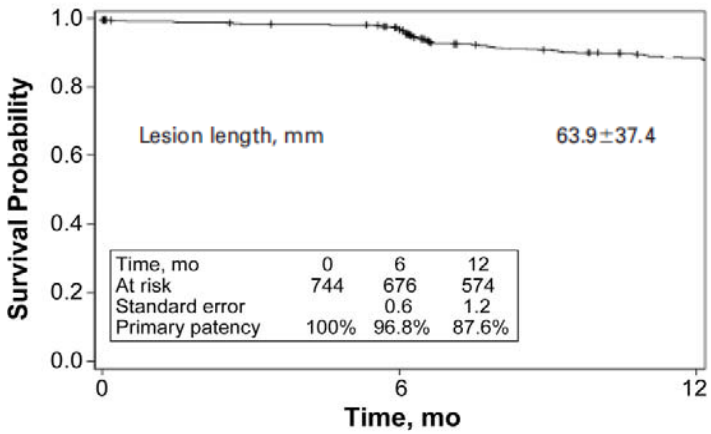
CON

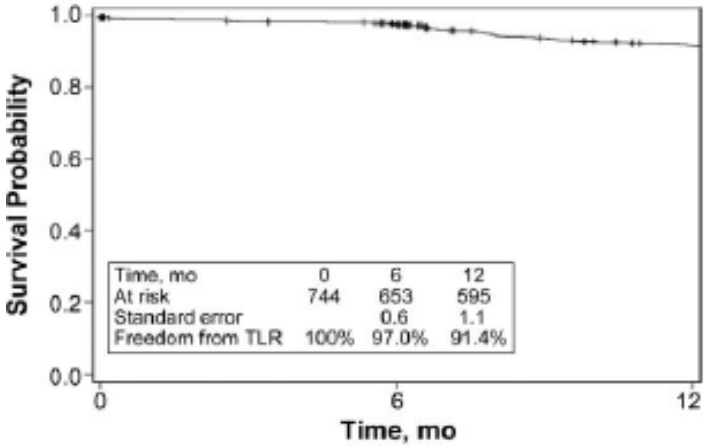
- Modern OTW devices also have low crossing profile
- Low pushability for calcified lesions, kinking of iliac arteries and CTO (long SFA land BTK lesion)

Jahnke T, Schäfer JP, Bolte H, Schäfer F, Michalek J, Charalambous N, Sapoval M, Müller-Hülsbeck S.
Retrospective study of rapid-exchange monorail versus over-the-wire technique for femoropopliteal angioplasty.
Cardiovasc Intervent Radiol. 2008 Sep-Oct;*31*(*5*):*854*-9. Epub 2007 Aug 21.



MISAGO 2: One-Year Outcomes After Implantation of the Misago Self-Expanding Nitinol Stent in the Superficial Femoral and Popliteal Arteries of 744 Patients



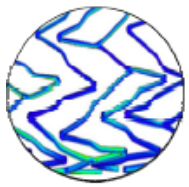


Efficacy and Safety Measures

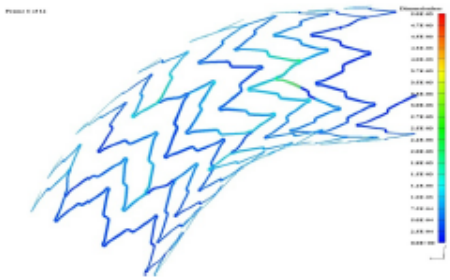
	Before Discharge (n=744)	6 Months (n=709)	12 Months (n=671)
TLR			
All*	4 (0.5%)	22 (3.1%)	68 (10.1%)
Per patient†	4 (0.5%)	21 (3.0%)	58 (8.6%)
Subgroups			
Popliteal artery (n=57)	—	3/55 (5.5%)	5/53 (9.4%)
Lesions >7 cm (n=223)	—	8/210 (3.8%)	28/192 (14.6%)
Total occlusions (n=282)	—	10/269 (3.7%)	32/251 (12.7%)
TASC C or D (n=91)	—	3/87 (3.4%)	9/82 (11.0%)

Schulte et al. J Endovasc Ther 2012;19:774-784

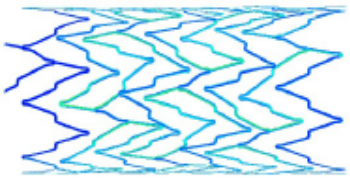
MISAGO Stent System



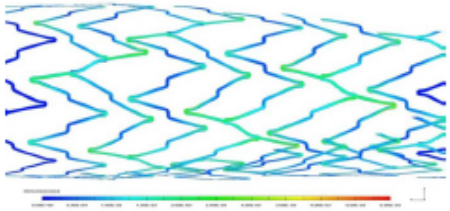
Bend



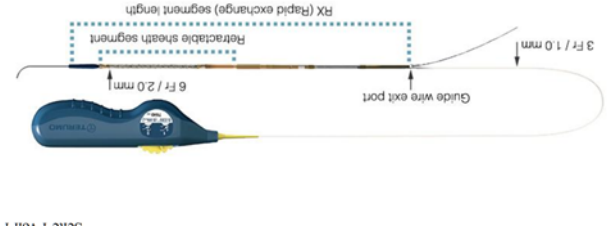
Compression



Torsion



- Low stress concentration
- Resistance against bending, compression and torsion
- Low fracture rate in MISAGO Trials



- One hand accurate positioning
- Less resistance at stenting

Stent fracture

	Total
Misago 1	1.7 %
Misago 2	3.1 %
Osprey JP arm	0.0 %

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Mean Cycles to Stent Fracture During Mechanical Bending, Compression, and Torsion Testing				
	Numbers Tested: (Bending/ Compression/ Torsion)	Bending	Compression	Torsion
Misago	5/5/5	536,000	650,000*	650,000*
Absolute	3/3/1	456,667	23,333	60,000
Smart	3/3/1	456,667	23,333	10,000
Luminexx	3/3/1	2,415	1,000	1,000
Sentinol	3/3/1	16,400	6,515	60,000
LifeStent	1/1/1	650,000*	48,995	60,000
Sinus-SuperFlex	1/1/1	5,000	4,445	5,000

J Endovasc Ther. 2010:17:767

Rapid Exchange Devices Observational Registry (RX Registry)

- Prospective, Non-randomized, Multicentre, Observational Registry to Assess Clinically Relevant Benefit of Performing the Whole PTA Procedure Using the Rapid Exchange (RX) Devices
- **Primary Outcome Measures:**

  Safety: composite of all-cause death, amputation, TVR, stroke or bleeding (BARC ≥ 3) up to 1 month

  Total contrast media volume given during the procedure
- **Inclusion Criteria:**

  Patients with symptomatic one or two legs ischemia, requiring treatment of SFA or popliteal artery, Rutherford classification 2-5

Principal Investigator:	Christophe Martinez	Centre Hospitalier Universitaire (CHU) Liège
Principal Investigator:	Omar Andrés Navarro	Hospital Universitari Dr. Josep Trueta de Girona
Principal Investigator:	Josua Van den Berg	Ospedale Regionale di Lugano

THANK YOU FOR YOU ATTENTION