#### CACVS 2013, Paris



# Covered stents provide better results

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# **Faculty Disclosure**

CONTROVERSES ET ACTUALITÉS EN CHIRURGIE VASCULAIRE CONTROVERSIES & UPDATES IN VASCULAR SURGERY JANUARY 17-19 2013

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*I disclose the following financial relationships:* I have **no financial relationships** to disclose.

Je déclare les informations suivantes : je n'ai **aucune relation financière** à déclarer.

www.cacvs.org

# Bare metal stents provide scaffolding for the plaque that is pushed aside during PTA



#### But...



# Can covered stents provide better results?



#### **VIBRANT** trial

Prospective, randomized, multicenter trial

Question : Does the use of GORE VIABAHN® Endoprosthesis result in greater mid- and long-term patency compared to bare nitinol stents in treating long SFA lesions ( > 8 cm)

Number of enrolled subjects : 72 Viabahn/76 BNS (148)

# **VIBRANT** trial

	Gore Viabahn Endoprosthesis	Bare nitinol stent	P-value
Number of randomized subjects	72	76	
Target lesion length (standard deviation)	19 cm (8)	18 cm (7)	0.87
Primary patency	500/	500/	0.50
(PSVR 2.5)	53%	58%	0.58
Freedom from TLR	73%	69%	0.69



# The next generation Gore VIABAHN Endoprosthesis

**Contoured proximal edge** Ultra-thin wall **Propaten Bioactive Surface** ePTFE tube Unique, durable bonding film Polished nitinol support Lengths: 2.5, 5, 10, 15, 25 cm **Diameters:** 5 - 13 mm© 2009 W. L. Gore & Associates, Inc.

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Prospective, non-randomized, multicenter trial

Goal :

Evaluate the performance of GORE® VIABAHN® Endoprosthesis with Heparin Bioactive Surface in treating long-segment SFA disease (> 5 cm in length)

Number of enrolled subjects : 120 SFA lesions



The GORE<sup>®</sup> VIABAHN<sup>®</sup> Endoprosthesis Device with Heparin Bioactive Surface exhibits good Patency in Long SFA Lesions that is:

- Independent of lesion lengths

   <20cm lesions (n=68): Primary patency = 75%</li>
   >20cm lesions (n=51): Primary patency = 70%
- Independent of device diameter used 5mm (n=23): Primary patency = 79% 6mm (n=85): Primary patency = 69% 7mm (n=8): Primary patency = 100%



#### Sizing is Critical

Primary patency is significantly better when IFU sizing is not exceeded at the proximal edge



# No comparison...



#### **VIASTAR** trial

Prospective, randomized, multicenter trial

Goal :

Evaluate the new generation GORE<sup>®</sup> VIABAHN<sup>®</sup> Endoprosthesis versus Bare Nitinol Stent in the treatment of SFA TASC B, C and D lesions

Number of enrolled subjects : 51 Viabahn/47 BNS (98)

#### **VIASTAR** trial

#### final 12 months results as presented at CIRSE 2012

	Viabahn	BMS	p value
Primary patency	78%	53%	0.01
Freedom from TLR	85%	77%	0.37
Secondary patency	95%	98%	0.35

VIABAHN has a significantly higher 1 year primary patency rate

# We have a winner!



# What is the biggest challenge in SFA?



## Look close!



#### **RELINE trial**

1:1 randomization83 patients\*Rutherford 2-5

39 VIABAHN Endoprosthesis **44** PTA alone

\* After Protocol Deviations were excluded

#### **RELINE trial**

#### **Primary endpoints**

- Primary patency at 12 months
  - no evidence of restenosis or occlusion within the originally treated lesion based on color-flow duplex ultrasound (CFDU) measuring a peak systolic velocity ratio ≤2.5 and without target lesion revascularization (TLR) within 12 months
- Proportion of subjects who experience serious device-related adverse events within 30 days post-procedure

### **RELINE trial**

#### PTA (N=44)

\*

Avg lesion length	190 (30-270
stenosis (pre)	75.0 %
chronic occlusion	25.0 %
acute occlusion	0.0 %
Calcified lesion	25.0 %**

8 bail-out procedures after failed PTA

\* Missing data of 3 patients \*\* Missing data of 1 patient

#### Viabahn (N=39)

Avg lesion length	173 (30-330)
stenosis (pre)	76.9 %
chronic occlusion	20.5 %
acute occlusion	2.6 %
Calcified lesion	33.3%



# **RELINE trial – 6M Primary Patency** VIABAHN vs. PTA



#### Conclusion

1) De novo lesions:

The VIABAHN endoprosthesis shows higher primary patency rates when compared with Bare Metal Stents.

2) In-Stent Restenosis: The VIABAHN endoprosthesis is a promising tool.

#### **Over & out**

