



**PERSPECTIVES 2017**

**December Friday 15 - BORDEAUX**

Organization: E. Ducasse, M. Sibé



[www.congresperspectives.com](http://www.congresperspectives.com)

# **Ma perspective de traitement de la fémorale commune la plus prometteuse**

**Y. Gouëffic, MD, PhD**

Department of vascular surgery, University hospital of Nantes, France

# Disclosure

Speaker name: Yann Gouëffic

---



I have the following potential conflicts of interest to report:

Receipt of grants/research support

Details: Abbott; Bard; Medtronic; Terumo; WL Gore

Receipt of honoraria and travel support

Details: Abbott; Bard; Boston Sc; Cook; Medtronic; Perouse; Spectranetics

Employment in industry

Details: /

Shareholder in a healthcare company

Details: /

Owner of a healthcare company

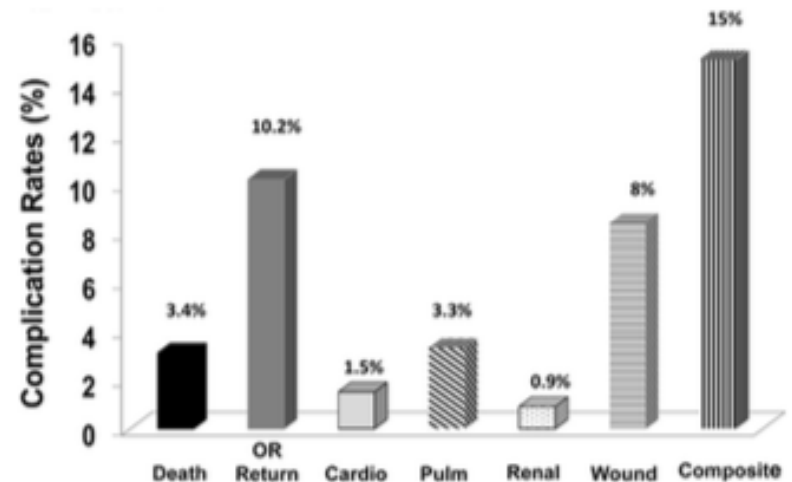
Details: /

I do not have any potential conflicts of interest to report

# Postoperative complications after common femoral endarterectomy

Bao-Ngoc Nguyen, MD, Richard L. Amdur, PhD, Mustafa Abugideiri, BS, Rodeen Rahbar, MD, Richard F. Neville, MD, and Anton N. Sidawy, MD, MPH, *Washington, D.C.*

- 1843 CFEs, Diabetes: 33%; CLI: 36%
- CFE between 2005-2010 from the ACS-NSQIP database
- Perioperative morbimortality outcomes before and after hospital discharge
- Morbi-mortality rates 15%
- Average length of stay :  $4.6 \pm 7.5$  d



**Conclusions:** CFE is not as “benign” a procedure as previously believed. The risks of death and wound complications are not insignificant, and a high percentage of these complications occurred after patients were discharged from the hospital. Patients should be carefully selected, especially in the elderly population, and close postoperative follow-up should be considered. (*J Vasc Surg* 2015;61:1489-94.)

## Endovascular Treatment of Common Femoral Artery Disease

Medium-Term Outcomes of 360 Consecutive Procedures

Robert F. Bonvini, MD,\*† Aljoscha Rastan, MD,\* Sebastian Siet, MD,\* Elias Noory, MD,\* Thomas Schwarz, MD,\* Ulrich Frank, MD,† Marco Roffi, MD,† Pierre André Dorosaz, PhD,† Uwe Schwarzwälder, MD,\* Karlheinz Böggeln, MD,\* Roland Macharzina, MD,\* Thomas Zeller, MD\*  
Bad Kreuzingen, Germany; and Geneva and Chur, Switzerland

### Key findings:

- 360 limbs / CLI: 22.1%
- Lost of FU @ 10mo: 12.2%
- Perioperative complications: 6.4%
- Restenosis rate: 27.6%
- TLR: 19.9%

The use of stents was identified as the only independent protective factor against procedural failure, TLR and 1-year restenosis

Bonvini, JACC, 2011



## Endovascular treatment of common femoral artery obstructions

Frederic Baumann, MD,\* Mirka Ruch,\* Torsten Willenberg, MD,\* Florian Dick, MD,\* Dai-Do Do, MD,\* Hak-Hong Keo, MD,\* Iris Baumgartner, MD,\* and Nicolas Diehm, MD,\* Bern, Switzerland

### Key findings:

- 98 limbs / CLI: 19%
- De novo / restenosis: 85/15%
- Perioperative complications: 6.4%
- Bailout stenting: 27%
- TLR: 17/46%

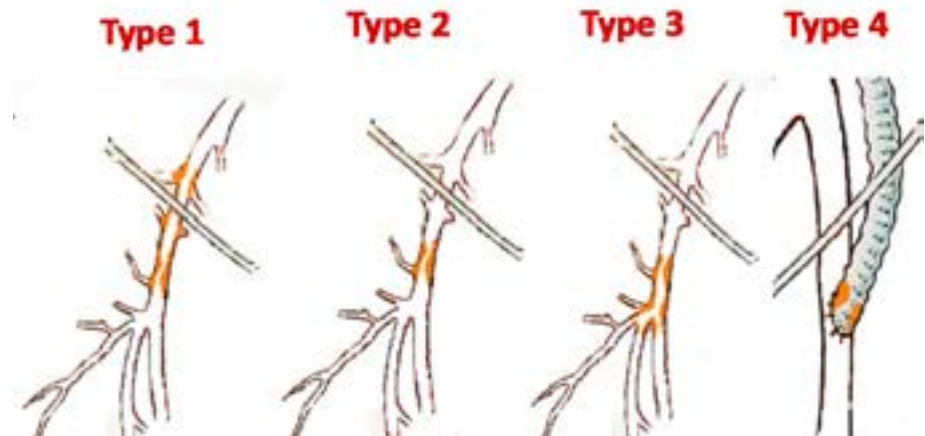
Primary sustained clinical improvement was significantly better in patients in whom stents had been implanted

Baumann, J Vasc Surg, 2011



# Pilot study 2006-2008 (Azéma, Eur J Vasc Endovasc Surg, 2011)

## 40 limbs – Primary stenting



**Perioperative morbi-mortality rate: 5%**

**ly clinical improvement @ 1y: 80%**

**TLR free @ 1-y: 85%**

**In-stent restenosis rate\*: 20%**

**Stent fracture\*\*: 2.5%**

*\* Defined systolic velocity peak index > 2.4*

*\*\* according Jaff M., Catheter Cardiovasc Interv 2007*

# TECCO trial

*French multicenter randomized trial comparing surgery versus stenting for the treatment of CFA atherosclerotic lesion (From 2011 to 2015)  
(NCT01353651)*

## Stenting or Surgery for De Novo Common Femoral Artery Stenosis



Yann Gouëffic, MD, PhD,<sup>a,b,c</sup> Nellie Della Schiava, MD,<sup>d</sup> Fabien Thaveau, MD, PhD,<sup>e</sup> Eugenio Rosset, MD, PhD,<sup>f</sup> Jean-Pierre Favre, MD, PhD,<sup>g</sup> Lucie Salomon du Mont, MD,<sup>h</sup> Jean-Marc Alzac, MD, PhD,<sup>i</sup> Réda Hassen-Khodja, MD,<sup>j</sup> Thierry Reix, MD,<sup>k</sup> Eric Allaire, MD, PhD,<sup>l</sup> Eric Ducasse, MD, PhD,<sup>m</sup> Raphael Soler, MD,<sup>n</sup> Béatrice Guyomarch, <sup>o</sup> Bahaa Nasr, MD<sup>p</sup>

JACC: CARDIOVASCULAR INTERVENTIONS CME/MOC



CHU de St Etienne (N°11), CHU de Rouen (N°12), Clinique du Tonkin (N°13), Nouvelles Cliniques Nantaises (N°14), Clinique St Augustin (N°15), HEGP (N°16), Hopital Henri Mondor (N°17)

# TECCO trial protocol

Sponsor Nantes University Hospital - TECCO trial, NCT01353651



- **Investigator initiated study**
- **RCT multicenter and controlled**
- **Rigorous data collection process, independent**
- **Adjudication by:**
  - *Duplex ultrasound core laboratory*
  - *Data safety monitoring board*
- **Follow-up includes**
  - 1, 6, 12, and 24-month clinical assessment
  - 1, 12 and 24-month stent x-ray
- **Monitoring with 100% source data verification**

- **Modified intent to treat analysis / Per protocol analysis**
- **Sample size calculation: 120 patients**
- **Randomly assigned in a 1:1 ratio**
- **80% power** to detect a between-group difference of 20% percentage points in the morbid-mortality rate at a two-sided alpha level of 0.05 (25% in the surgery group and 5% in the stenting group).
- Primary endpoint: morbid-mortality rate at 1 month including general complications and Local complications

# Population

## Main inclusion criteria

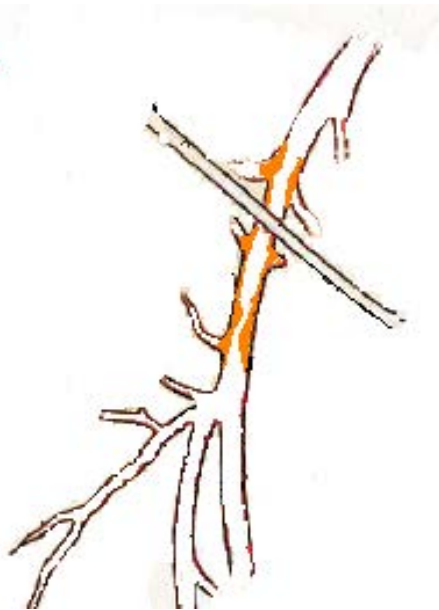
- Age between 40 and 90 years-old
- De novo atheromatous common femoral artery stenosis
  - Rutherford stages 3 to 6

## Main exclusion criteria

- Restenosis
- Thrombosis
- No atheromatous disease
  - Asymptomatic lesion
  - Life expectancy < 1 year

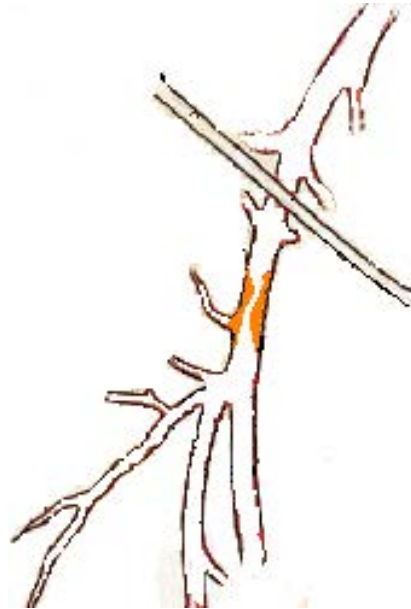
# CFA lesions classification

**Type 1**



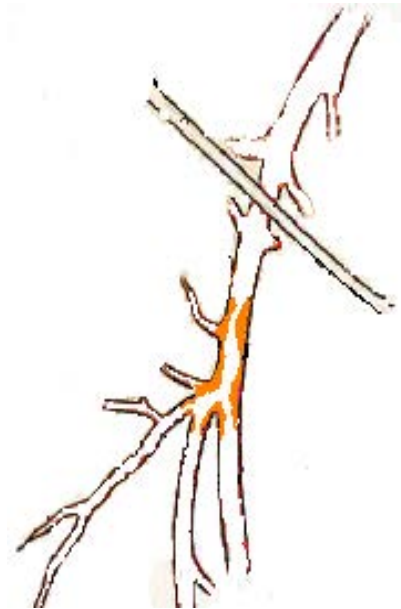
**Nitinol**

**Type 2**



**Nitinol**

**Type 3**



**Nitinol  
and/or  
BES**

**Type 4**



**Nitinol**

# Procedures

## Open repair

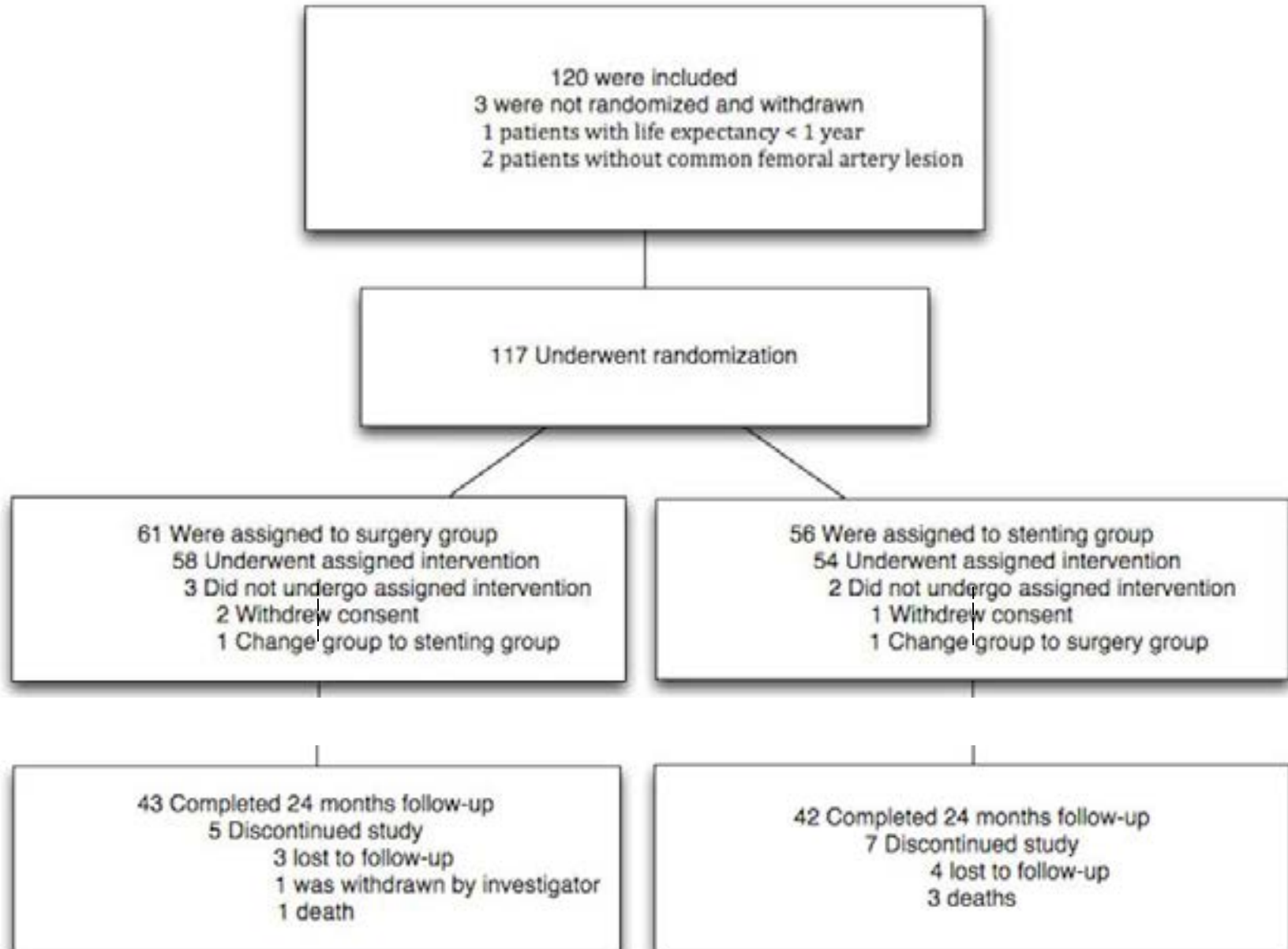
At the discretion of the physician (bypass,endarterectomy...)

## Endovascular repair

- Anaesthesia: at the discretion
- Over the bifurcation, ipsilateral or brachial approaches
  - Primary stenting
- Antiplatelet treatment: at the discretion

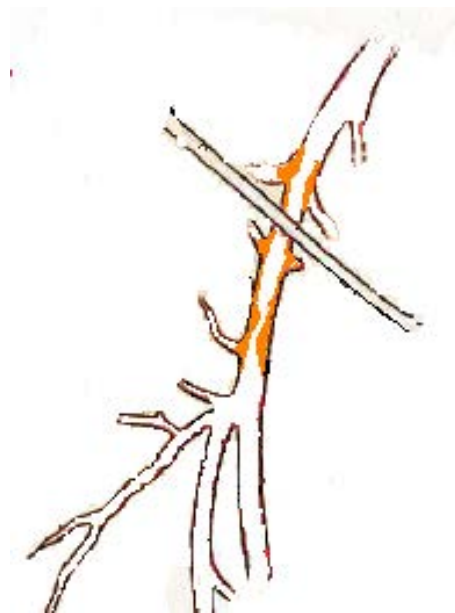


# TECCO flow chart

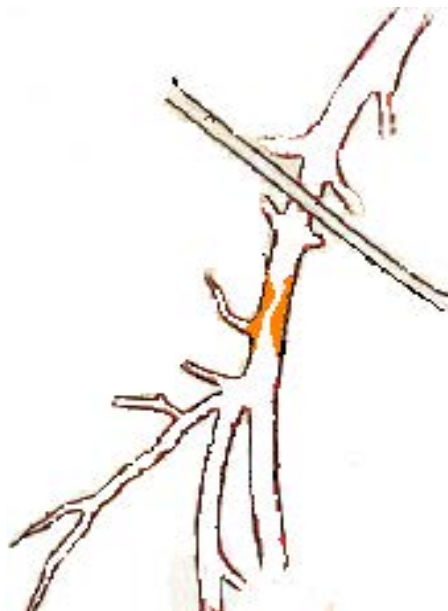


# TECCO lesions characteristics

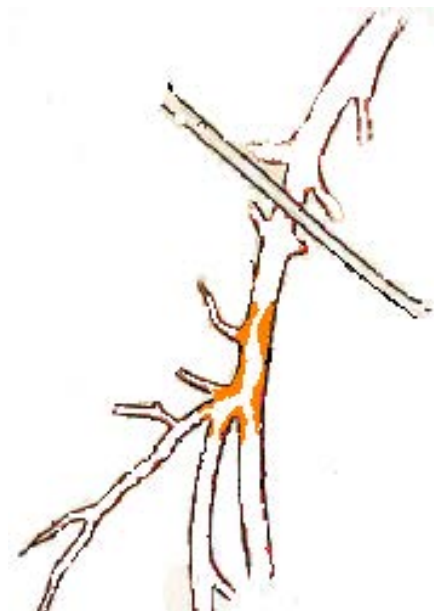
**Type 1**



**Type 2**



**Type 3**



**Surgery (%): 6 (10)**

**Stenting (%): 9 (16)**

**21 (34)**

**13 (23)**

**34 (56)**

**34 (61)**

# Intraoperative data

<i>Surgery (N=58)</i>		<i>Stenting (N=54)</i>	
<b>Endarterectomy</b>	46 (69)	<b>Crossover access – no. (%)</b>	43 (78)
with venous patch (%)	7 (12)	<b>Brachial access – no. (%)</b>	7 (13)
with prosthetic patch (%)	37 (64)	<b>Femoral ipsilateral – no. (%)</b>	4 (7)
direct suture (%)	2 (3)		
<b>Bypass with a prosthesis</b>	11 (19)		
<b>Eversion</b>	1 (2)		

# Primary endpoint

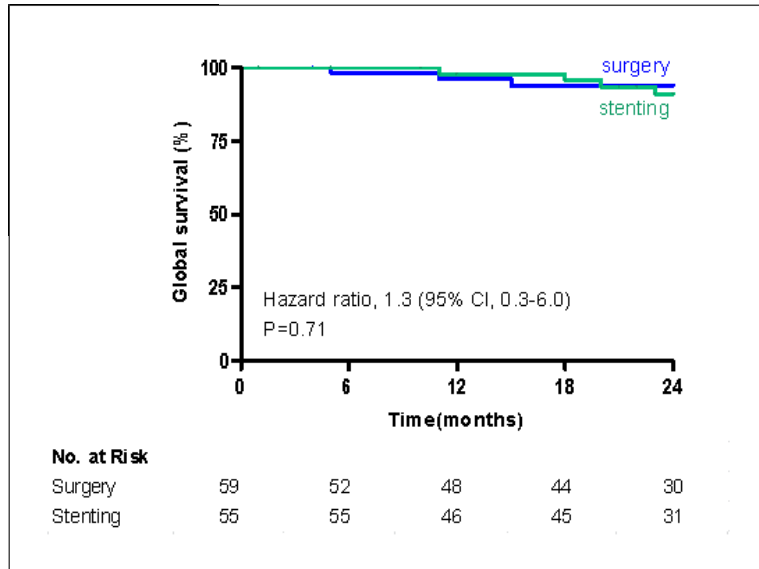
## *Modified intent to treat analysis*

	Surgery (n=61)	Stenting (n=56)	p
Morbid-mortality rate @ 1 month, n (%)	16 (26)	7 (12.5)	0.05

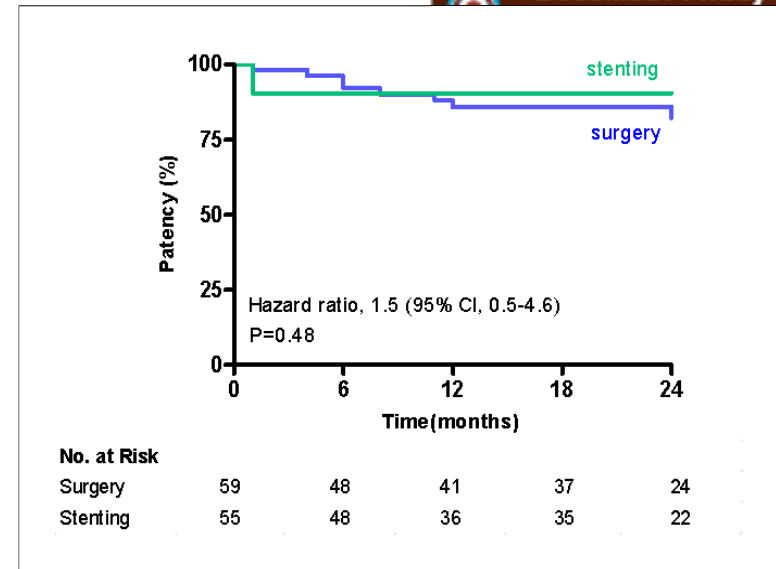
## *Per protocol analysis*

	Surgery (n=58)	Stenting (n=47)	p
Morbid-mortality rate @ 1 month, n (%)	16 (26)	3 (6.4)	0.005

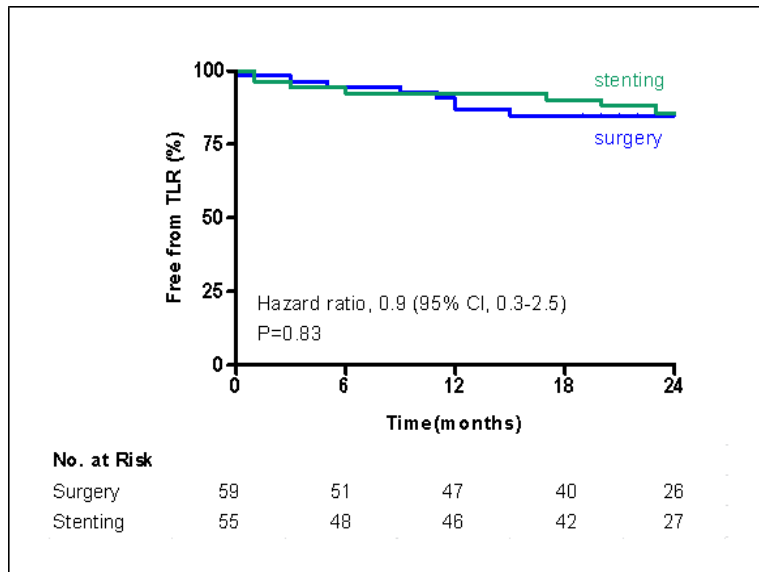
### Survival @ 24 months



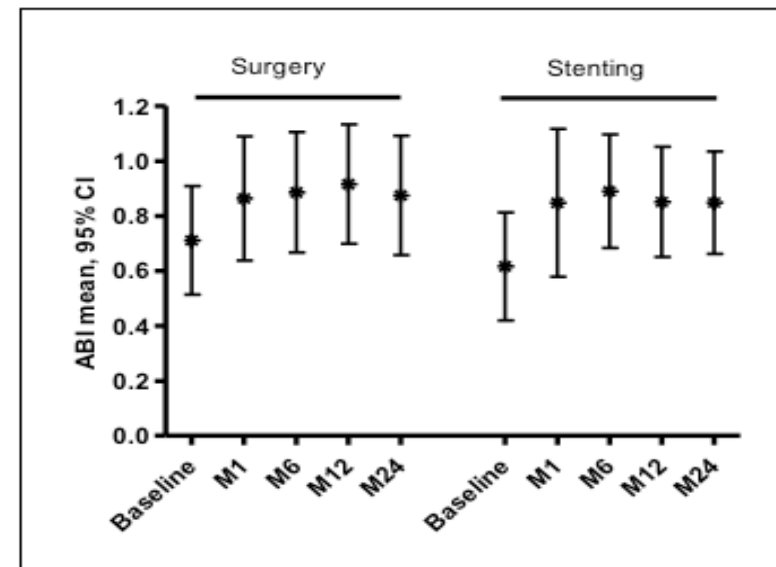
### Patency @ 24 months



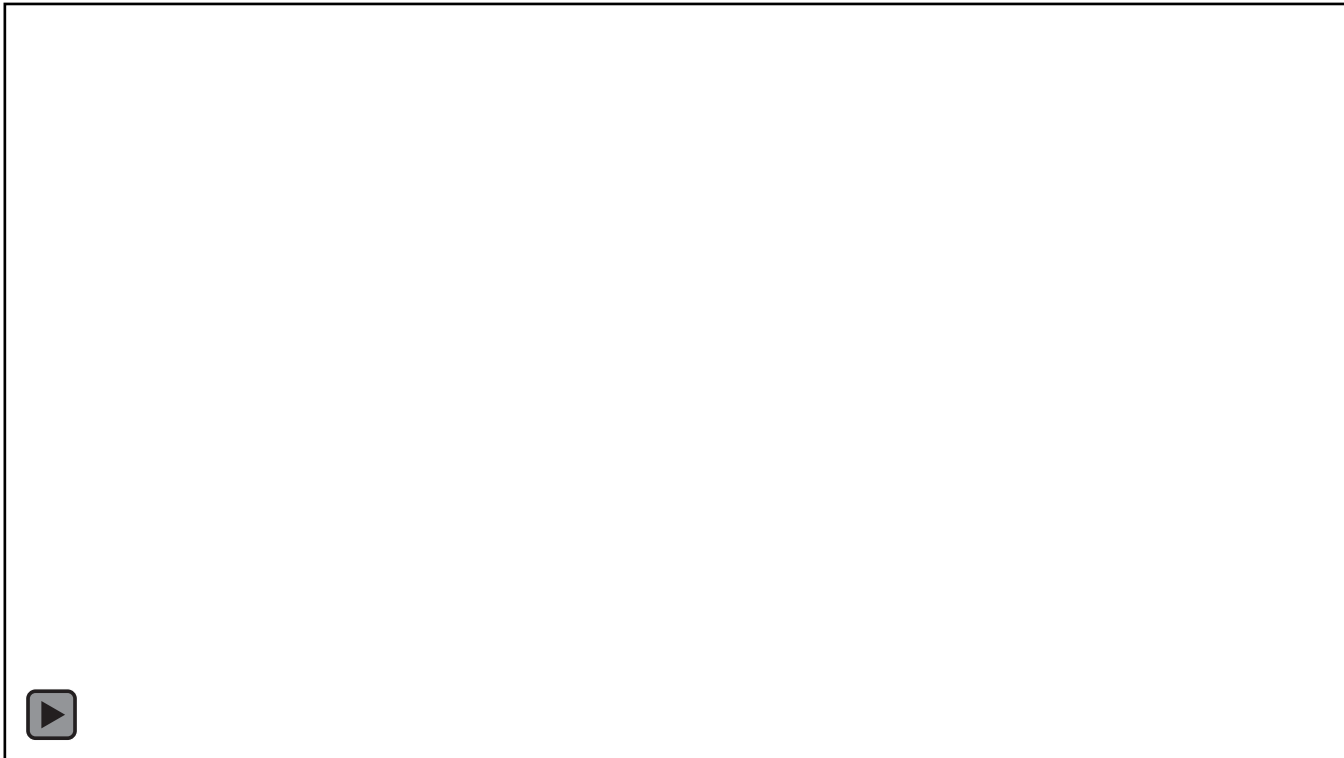
### Freedom from TLR @ 24 months



### Haemodynamic improvement @ 24 months



# CFA bifurcation (type 3) repair is feasible



**In TECCO RCT, 61% of the lesions were type 3**

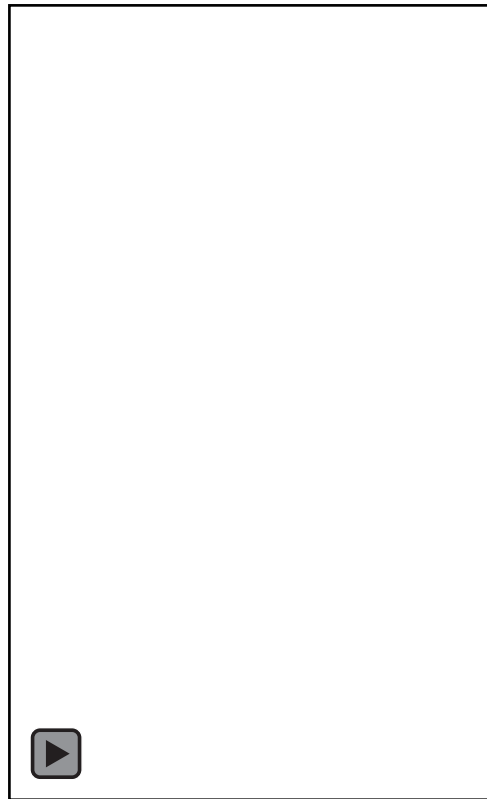


# Coral reef lesions are not a limit

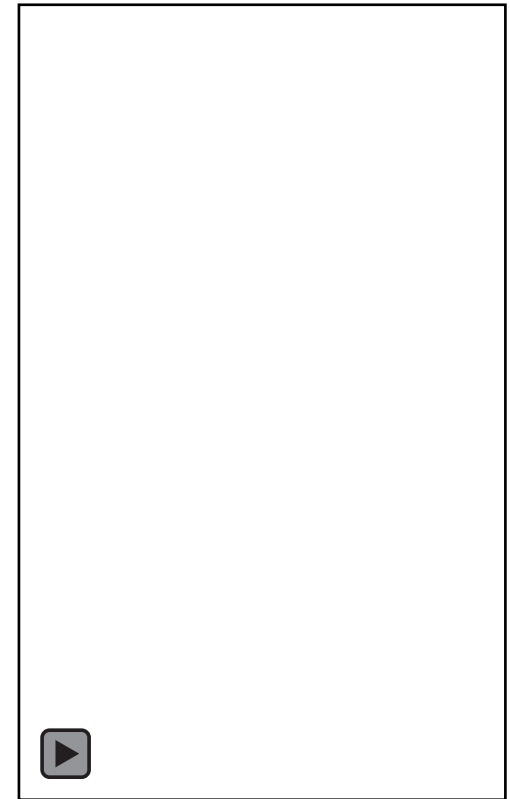
**Pre operative lesions**



**Pre-inflation 9-40mm**



**Supera 8-40mm**



# Retrograde recanalization is possible

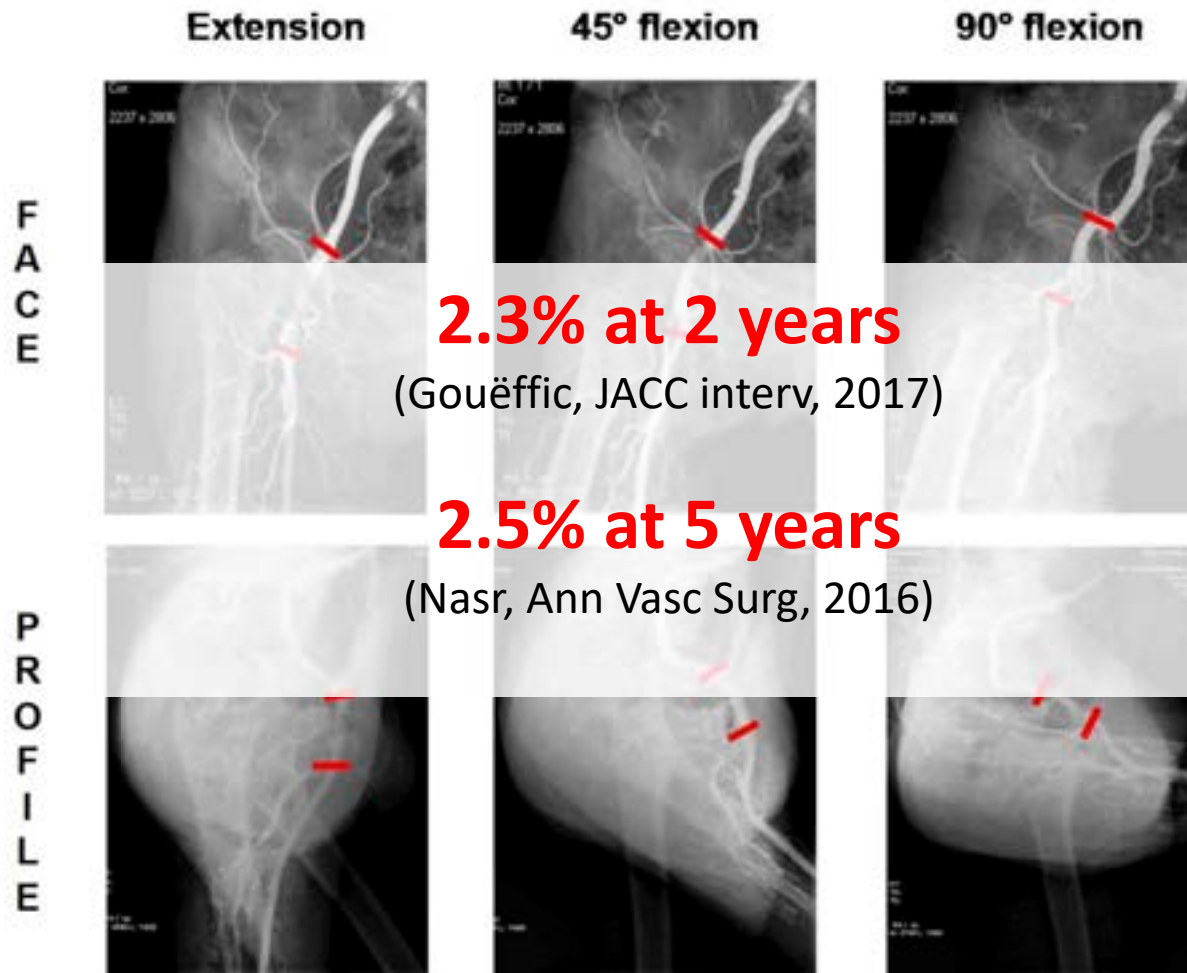
*Videos not available*

**Stented CFA does not compromise  
future approaches**

***Videos not available***



# Fear of stent fracture is not longer relevant



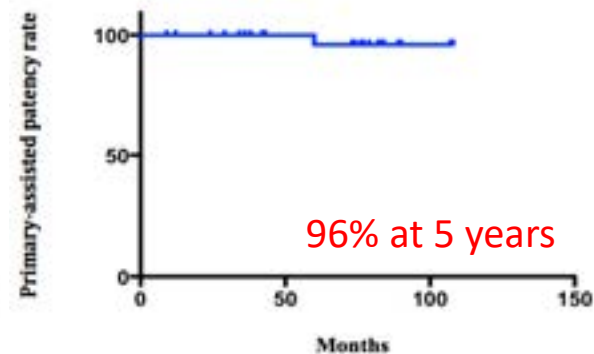
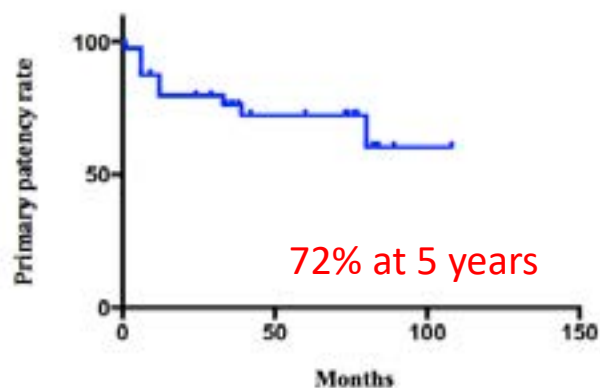
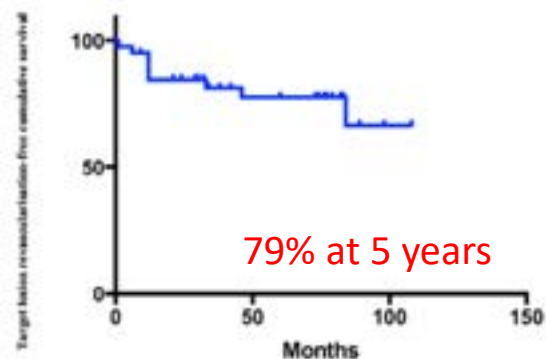
# Long-Term Outcomes of Common Femoral Artery Stenting

Bahaa Nasr, Adrien Kaladji, Pierre-Alexandre Vent, Philippe Chaillou, Alain Costargent, Thibault Quillard, Yann Gouëffic

PlumX Metrics

DOI: <http://dx.doi.org/10.1016/j.avsg.2016.07.088>

CrossMark



**Conclusions:** Endovascular repair of the common femoral artery and its bifurcation seems to provide sustained clinical and morphological long-term results. Fear of stent fracture and local complications due to hip mobility are no longer relevant.

# Ma perspective de traitement de la fémorale commune la plus prometteuse ?



- *Diminution de morbo-mortalité périopératoire*
- *Résultats à long terme*
- *Conservation de la voie d'abord fémoral*
- *Traitement de lésions complexes*
- *Calcifications ne sont pas une limite*
- *L'absence de retentissement des mouvements de hanche*

**Le traitement endovasculaire par stenting est le traitement de 1<sup>ère</sup> intention de la fémorale commune**



