

CONTROVERSES ET ACTUALITÉS EN CHIRURGIE VASCULAIRE  
CONTROVERSIES & UPDATES IN VASCULAR SURGERY

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MARRIOTT RIVE GAUCHE & CONFERENCE CENTER

**PARIS, FRANCE**



Hypogastric issues:

Are polyester branch grafts still  
open after 10 years?

F Cochenec, M Majewski, J Marzelle,  
E Allaire, P Desgranges, JP Becquemin

## **Disclosure**

Speaker name: Cochenec.

I have the following potential conflicts of interest to report:

Consulting: proctor for Cook

Employment in industry

Shareholder in a healthcare company

Owner of a healthcare company

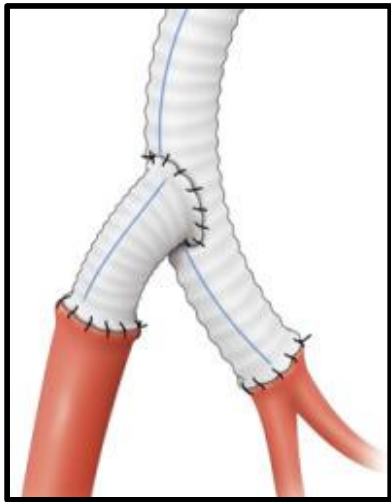
Other(s)

I do not have any potential conflict of interest

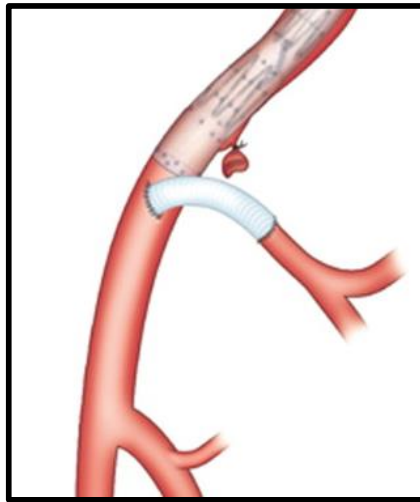
# AAA involving the iliac bifurcation

20-40% of AAA

Open Repair



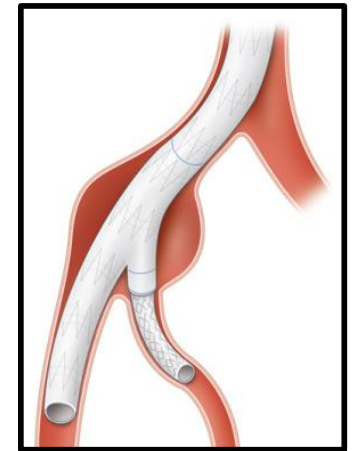
Hybrid repair



Endovascular repair



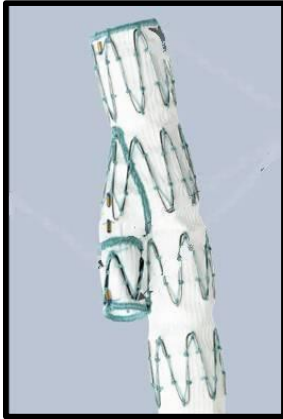
Without preservation of IILAs



IBD

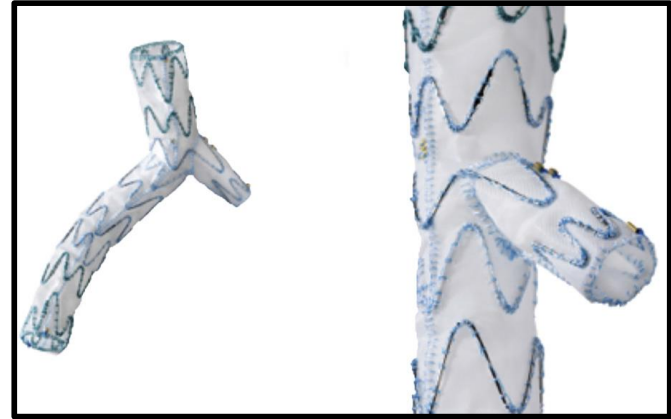
+ Off label techniques: sandwich, Bell Bottom, Nellix etc.

# polyester branch grafts



**Cook Zbis**

>3000 Implantations  
worldwide



**Jotec E-iliac**

*Mylonas et al. JVS 2016*

N=70

Technical success: 100%

Freedom from IBD occlusion: 92% 1 year

# Good short-term and mid-term results

## REVIEW

### Outcome after Interruption or Preservation of Internal Iliac Artery Flow During Endovascular Repair of Abdominal Aorto-iliac Aneurysms

G.N. Kouvelos <sup>a,\*</sup>, A. Katsargyris <sup>a</sup>, G.A. Antoniou <sup>b</sup>, K. Oikonomou <sup>a</sup>, E.L.G. Verhoeven <sup>a</sup>

*EJVES 2016*

**671 IBD patients**

Technical success: 96%

30 day mortality: 0.5%

Pooled IBD occlusion rate at 30 day: **4%**

Median follow-up: **15 months**

Occlusion rates during follow-up:

**IBD: 5%**

**EIA: 2%**

Are polyester branch grafts still open after  
10 years?

We do not know

Are polyester branch grafts still open after  
5 years?

Limited data are available

# Kouvelos et.al ; EJVES 2016

**Table 2.** Studies reporting clinical outcomes of internal iliac artery preservation (unilateral and/or bilateral) in patients undergoing endovascular aneurysm repair.

Study/year	NOS	Patients	Procedure	Follow up (months)	Occlusion within 30 days	Occlusion during FU	Ischemic symptoms during FU	IIA related endoleak during FU	IIA related re-interventions during FU
Faries et al. (2001)	4	10	10 bypass, 1 transp	10.1	0	0	0	NA	0
Arko et al. (2004)	6	9	Bypass	6	0	1	0	NA	0
Unno et al. (2006)	3	5	Bypass	1	0	0	0	NA	0
Lee et al. (2006)	4	26	Bypass	36	1	NR <sup>a</sup>	NR <sup>a</sup>	NA	NR <sup>a</sup>
Ziegler et al. (2007)	4	46	IBD	24	5	4	1	0	0
Inglott et al. (2007)	3	8	IBD	6	0	1	0	0	0
Dias et al. (2007)	4	22	IBD	20	2	4	2	1	4
Huilgol et al. (2008)	4	25	IBD	12	0	1	1	1	1
Tielliu et al. (2009)	4	27	IBD	16	0	3	1	1	0
Ferreira et al. (2010)	4	37	IBD	11.6	1	5	1	0	0
Pua et al. (2011)	4	14	IBD	18.7					
<b>Donas et al. (2011)</b>	4	64	IBD	30.5					
Ricci et al. (2012)	4	7	Parallel	15	0	0	0	0	0
Parlani et al. (2012)	4	100	IBD	17	7	4	4	3	8
DeRubertis et al. (2012)	3	22	Parallel	7.2	0	2	0	0	1
Wong et al. (2013)	4	130	IBD	20.3	11	11	5	4	12
Lobato et al. (2013)	4	40	Parallel	12	4	0	0	0	0
Alonso et al. (2013)	4	9	IBD	14.7	0	0	0	0	0
Pratesi et al. (2013)	4	81	IBD	20.4	1	0	1	3	2
Massiere et al. (2014)	4	12	EIA—IIA stent graft	34.3	0	0	0	0	0
Bisdas et al. (2014)	4	18	IBD	15	0	2	2	0	2
Chowdbury et al. (2014)	3	27	IBD	11.3	0	1	0	0	0
Wu et al. (2015)	4	5	IBD	24	0	0	0	0	0
Unno et al. (2015)	4	6	IBD	14.2	0	0	0	0	0
Zhang et al. (2015)	4	11	IBD	12	0	2	NR	2	4
Loth et al. (2015)	4	41	IBD	22	4	6	0	4	6
Wu et al. (2015)	4	14	Crossover stent	14.3	0	1	1	1	0
Pooled rate (% , 95% CI)					6.6% (5–8.8)	8.8% (6.8–11.3)	4.1% (2.9–5.9)	4.6% (3.2–6.5)	7.8% (5.7–10.7)

Only one study with a mean follow-up > 2 years

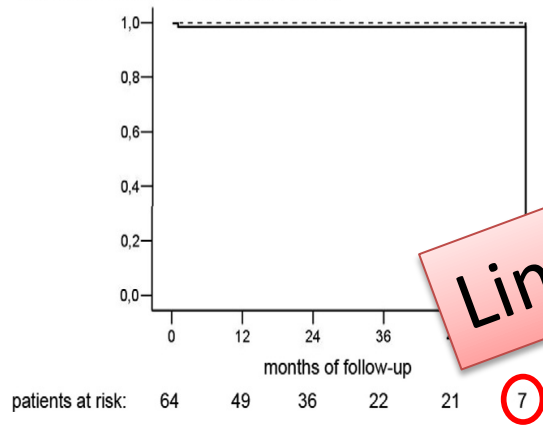
# Long Term IBD patency rates

80-98% at 5 years

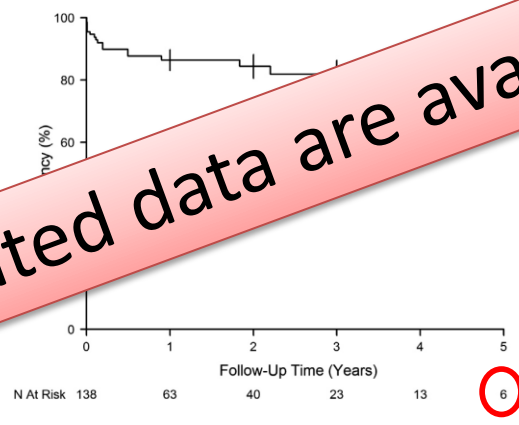
Patients at risk at 5 years: < 7

Mean follow-up: 20-30 months

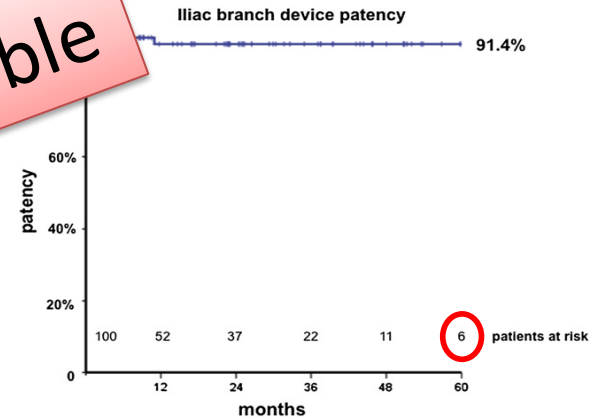
Cumulative primary and secondary patency



*Donas, JVS 2011*  
N=64



*Wong, JVS 2013*  
N=130

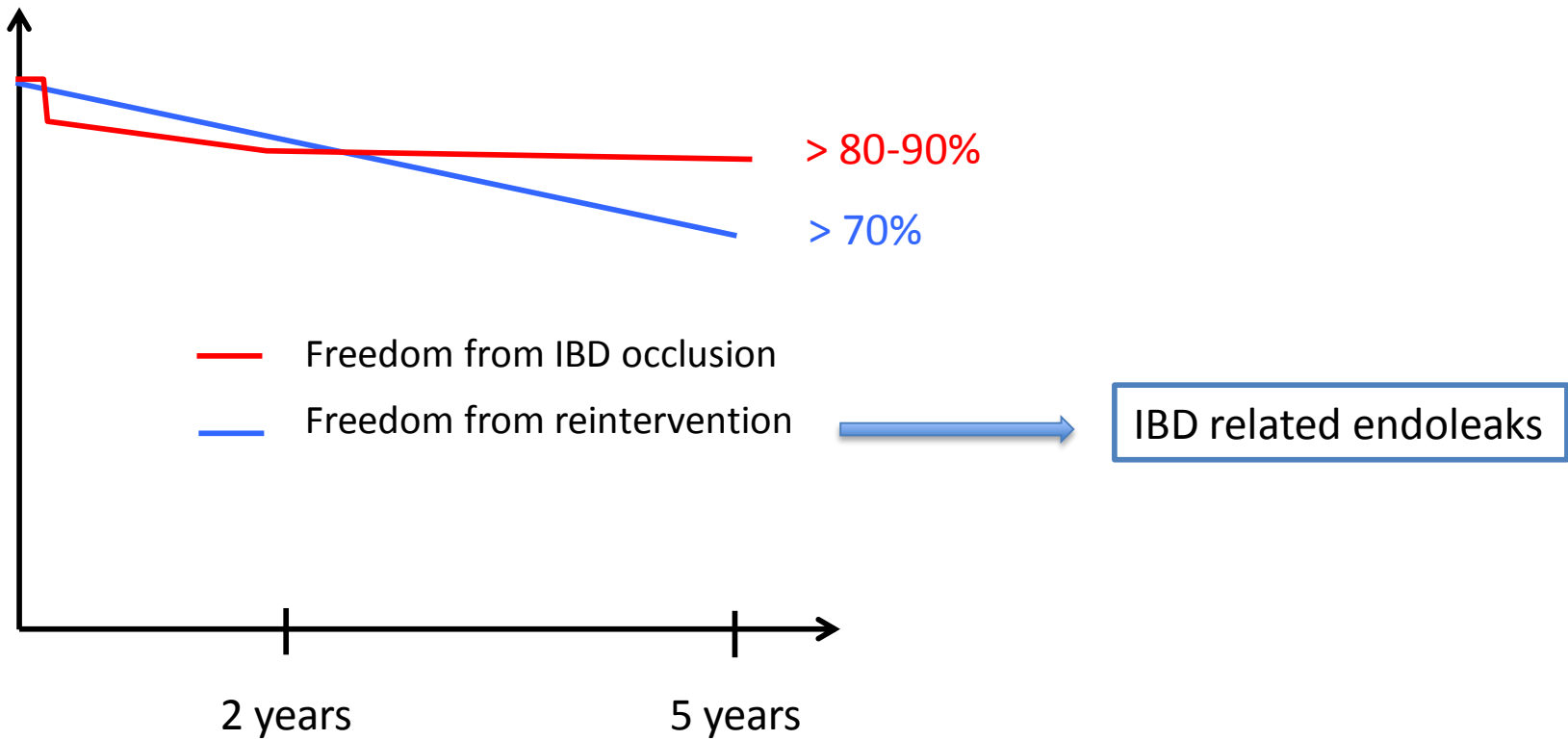


*Parlani, EJVES 2011*  
N=100

Limited data are available

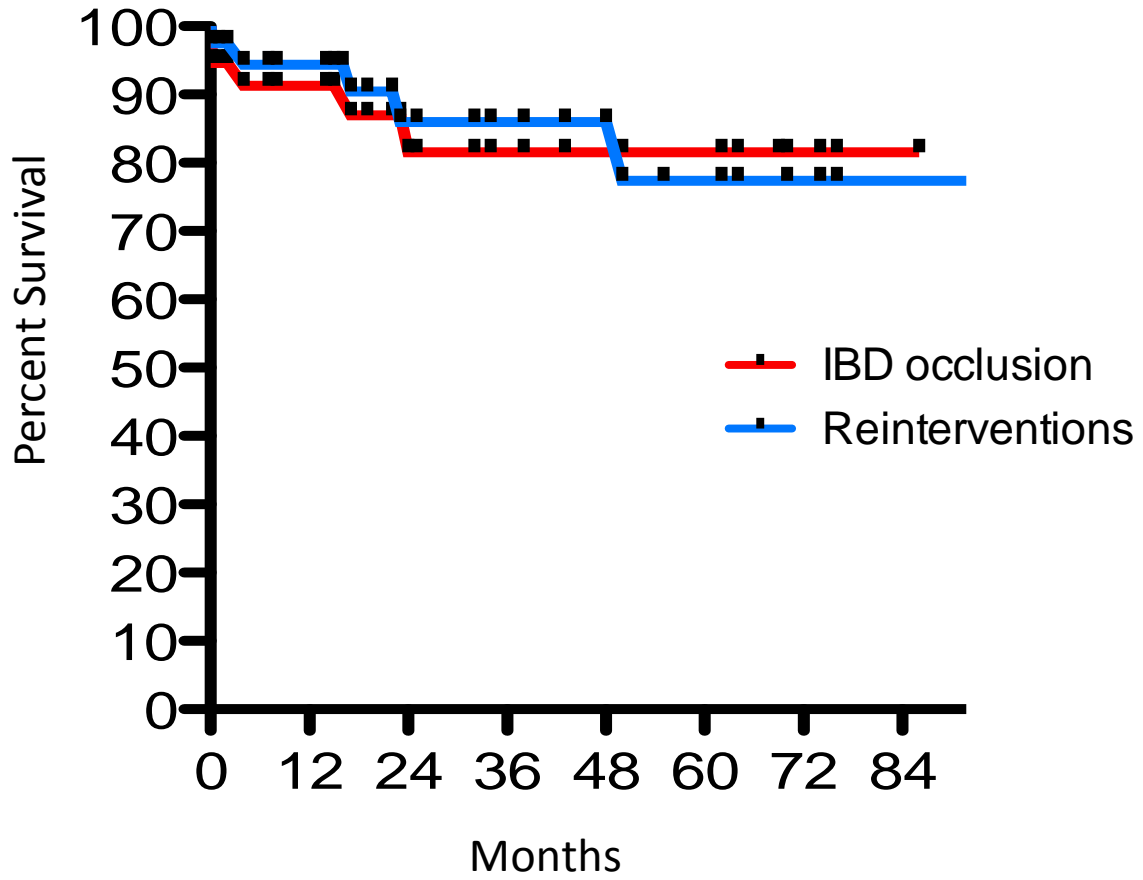


# Life Table Profile



# Henri Mondor Experience

N=39



# Clinical consequences of IBD occlusion

Persistent buttock claudication: **40-70%**

*Jongsma et al, JET 2016*

*Dias et al, JVS 2008*

*Wong et al, JVS 2013*

*Karthikesalingam et al, EJVES 2010*

Persistent buttock claudication = severe quality of life impairment

*Jean Baptiste et al, JVS 2014*

Anatomical factors associated with IBD occlusion?

# Internal iliac artery aneurysms

- Technical failure
- IBD related endoleaks
- IBD related reinterventions

**But did not affect IBD patency**

*Wong, JVS 2013*

*Pratesi, EJVES 2013*

*Parlani, EJVES 2011*

# Outcomes of a novel technique of endovascular repair of aneurysmal internal iliac arteries using iliac branch devices

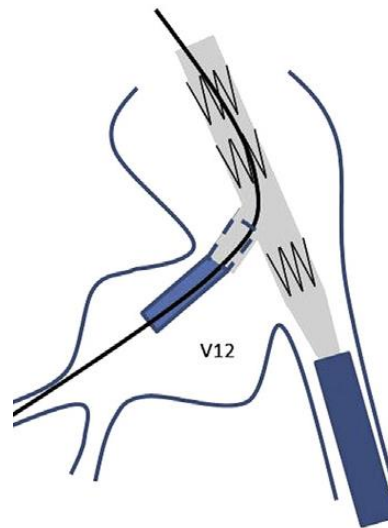
Martin Austermann, MD,<sup>a</sup> Theodosios Bisdas, MD,<sup>a</sup> Giovanni Torsello, MD,<sup>a</sup> Michel J. Bosiers, MD,<sup>a</sup> Konstantinos Lazaridis, PhD,<sup>b</sup> and Konstantinos P. Donas, MD, PhD,<sup>a</sup> *Münster, Germany; and Athens, Greece*

JVS 2013

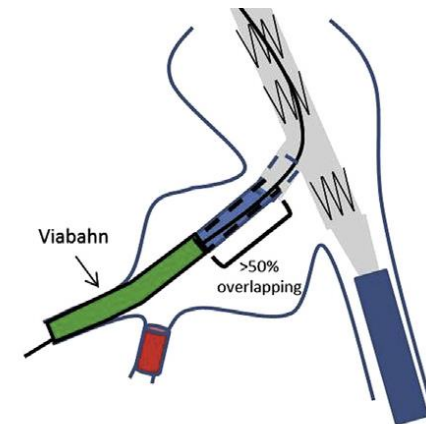
N=16, follow-up: 24 months

IBD patency : 95%

IBD endoleaks: 0%



1: Proximal V12



2: Distal Viabahn  
Superior Gluteal artery

# Internal Iliac Aneurysm Repair Outcomes Using a Modification of the Iliac Branch Graft

M. Noel-Lamy<sup>\*</sup>, J. Jaskolka, T.F. Lindsay, G.D. Oreopoulos, K.T. Tan

*EJVES 2015*

N=15, follow-up: 20 months

IBD patency: 100%

One type II EL

One Viabahn preferred

If two IIA stentgrafts needed: distal Viabahn first

Anterior IIA division embolized if > 5mm

CIA diameter < 18 mm

Endovascular repair of aortoiliac aneurysmal disease with the helical iliac bifurcation device and the bifurcated-bifurcated iliac bifurcation device

Shen Wong, MD, Roy K. Greenberg, MD, Chase R. Brown, BS, Tara M. Mastracci, MD, James Bena, MS, and Matthew J. Eagleton, MD, *Cleveland, Ohio*

*JVS 2013*

- Did not affect technical success
- Did not affect IBD patency

**-Kissing balloon:**

6-8 mm in the iliac branch  
12 mm in the EIA limb

**-Iliac branch balloon deflated after withdrawal of nose cone**



# Does IIA stentgraft influence patency?

◆ REVIEW ◆

## Technical Considerations and Performance of Bridging Stent-Grafts for Iliac Side Branched Devices Based on a Pooled Analysis of Single-Center Experiences

Konstantinos P. Donas, MD, PhD\*; Theodosios Bisdas, MD\*; Giovanni Torsello, MD, PhD; and Martin Austermann, MD, PhD

Department of Vascular Surgery, St. Franziskus Hospital Münster, and Clinic for Vascular and Endovascular Surgery, Münster University Hospital, Münster, Germany.

*JET 2012*

IBD occlusion rates:

**Balloon Expandable** covered stents: **3%**

**Self-expandable** covered stents (mainly Fluency): **11%**

Statistical comparison not possible

## Conclusion

10 year patency rate: not known

Estimated 5 years patency rates > 80-90%

Most IBD occlusions occur within 2 years

Using adjunctive procedures, anatomical risk factors of technical failure may not affect IBD patency

IIA stent graft: Balloon expandable or Viabahn > Fluency