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

#### JANUARY 19-21 2017 MARRIOTT RIVE GAUCHE & CONFERENCE CENTER

MARRIOTT RIVE GAUCHE & CONFERENCE CENTER PARIS, FRANCE

ENDOVASCULAR
TREATMENT OF
LERICHE SYNDROME:
THE KEYS TO SUCCESS

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Disclosure
Speaker name:
SONIA RONCHEY
I have the following potential conflicts of interest to report:
□ Consulting
□ Employment in industry
Shareholder in a healthcare company
Owner of a healthcare company
□ Other(s)
X I do not have any potential conflict of interest

Society for Vascular Surgery practice guidelines for atherosclerotic occlusive disease of the lower extremities: Management of asymptomatic disease and claudication

Society for Vascular Surgery Lower Extremity Guidelines Writing Group: Michael S. Conte, MD, (Co-Chair), Frank B. Pomposelli, MD, (Co-Chair), Daniel G. Clair, MD, Patrick J. Geraghty, MD, James F. McKinsey, MD, Joseph L. Mills, MD, Gregory L. Moneta, MD, M. Hassan Murad, MD, Richard J. Powell, MD, Amy B. Reed, MD, Andres Schanzer, MD, and Anton N. Sidawy, MD, MPH, San Francisco, Calif; Boston, Mass; Cleveland, Ohio; St. Louis, Mo; New York, NY; Tucson, Ariz; Portland, Ore; Rochester, Minn; Lebanon, NH; Hershey, Pa; Worcester, Mass; and Washington, D.C.

5.7. For patients with diffuse AIOD (eg, extensive aortic disease, disease involving both common and external iliac arteries) undergoing revascularization, we suggest either endovascular or surgical intervention as first-line approaches. Endovascular interventions that may impair the potential for subsequent AFB in surgical candidates should be avoided.

#### (grade II lev B)

#### The CERAB technique: tips, tricks and results

The Journal of Cardiovascular Surgery 2016 June;57(3):343-9

Kim TAEYMANS, Peter GOVERDE \*, Katrien LAUWERS, Paul VERBRUGGEN

Seven-Year Approach Evolution of the Aortoiliac Occlusive Disease Endovascular

**Treatment** Ann Vasc Surg 2015;  $\blacksquare$ : 1–9

Holta Kasemi, 1,2 Mario Marino, 1,2 Carlo Patrizio Dionisi, 3 Costantino Luca Di Angelo, 1 and Gian Franco Fadda, 1 Nuoro, Rome and Lecce, Italy

J Vasc Surg. 2013 Feb;57(2):399-405. doi: 10.1016/j.jvs.2012.08.108. Epub 2012 Dec 7.

Chimney grafts preserve visceral flow and allow safe stenting of juxtarenal aortic occlusion.

Bin Jabr A, Sonesson B, Lindblad B, Dias N, Resch T, Malina M.

J Cardiovasc Surg (Torino). 2014 Apr 15. [Epub ahead of print]

Endovascular management of total juxtarenal aortic occlusive disease in high-risk patients: technical considerations and clinical outcome.

Mangialardi N1, Ronchey S, Serrao E, Fazzini S, Alberti V, Orrico M, Kasemi H.

Intern Med. 2015;54(8):921-4. doi: 10.2169/internalmedicine.54.2920. Epub 2015 Apr 15.

Successful endovascular treatment for high take off aorto-iliac occlusive disease.

Nomura A<sup>1</sup>, Nagashima M, Tomoi Y, Tosaka A, Soga Y.

#### Treatment of Aortoiliac Occlusive Disease with the Endologix AFX Unibody Endograft

T.S. Maldonado ",", G.G. Westin ", O. Jazaeri b, M. Mewissen c, M.M.P.J. Reijnen d, A.J. Dwivedi c, H.E. Garrett, Jr. f,

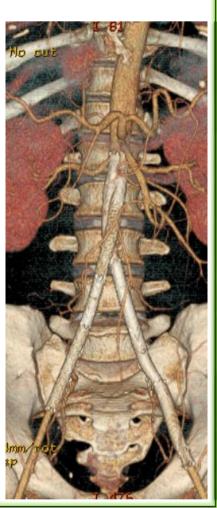
#### **CERAB**

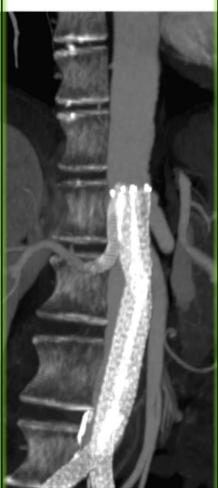
### HUGGING BM STENTS OR COVERED STENTS

#### CHIMNEY





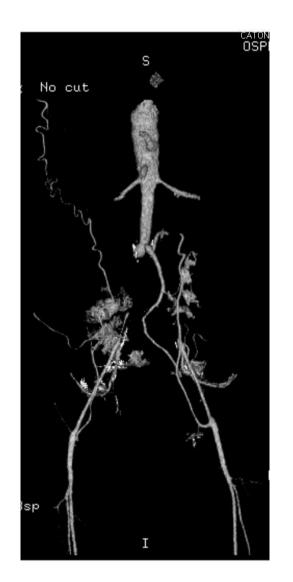


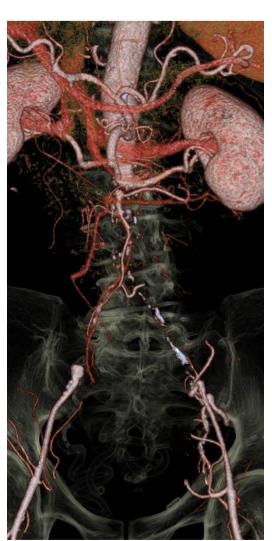


 TECHNICAL DEMANDING (LOW RISK OF FAILURE < 5%)</li>

 RISK OF RENAL/VISCERAL EMBOLIZATION

#### RELATED TO THE OCCLUSION LEVEL

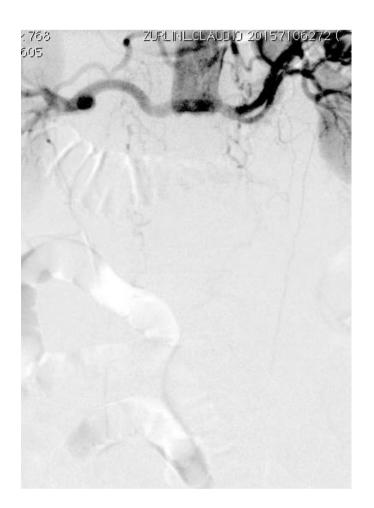






## RELATED TO THE PRESENCE OF RECENT THROMBUS



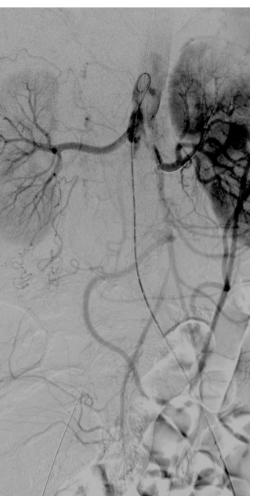


3 MTHS AFTER

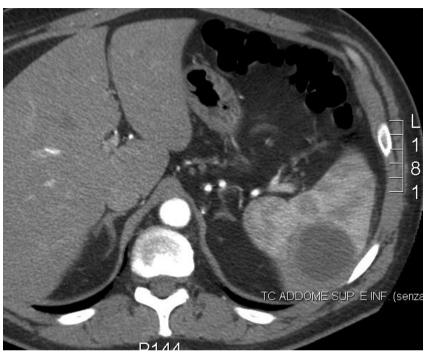
#### HIGH WITH NO PRECAUTION

#### 2 RENALS





#### 1 VISCERAL



## LESSON LEARNED

## RECANALIZATION FROM ABOVE WITH SHEATH INSIDE THE LESION





## RECENT THROMBOSIS IS A RISKY SITUATION



#### RETROGRADE RECANALIZATION

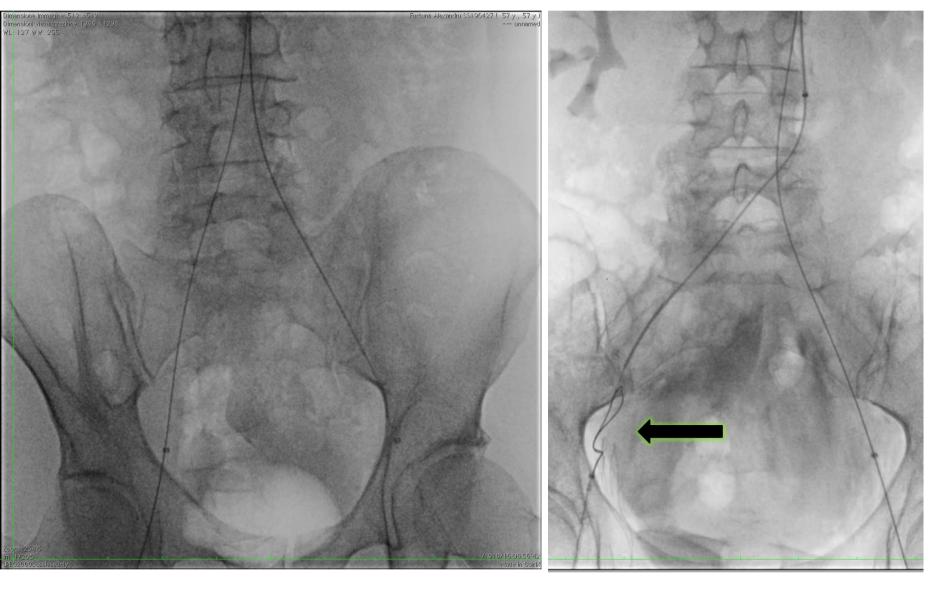
Not recommend



Only when feasible intraluminally with a 0.014 wire



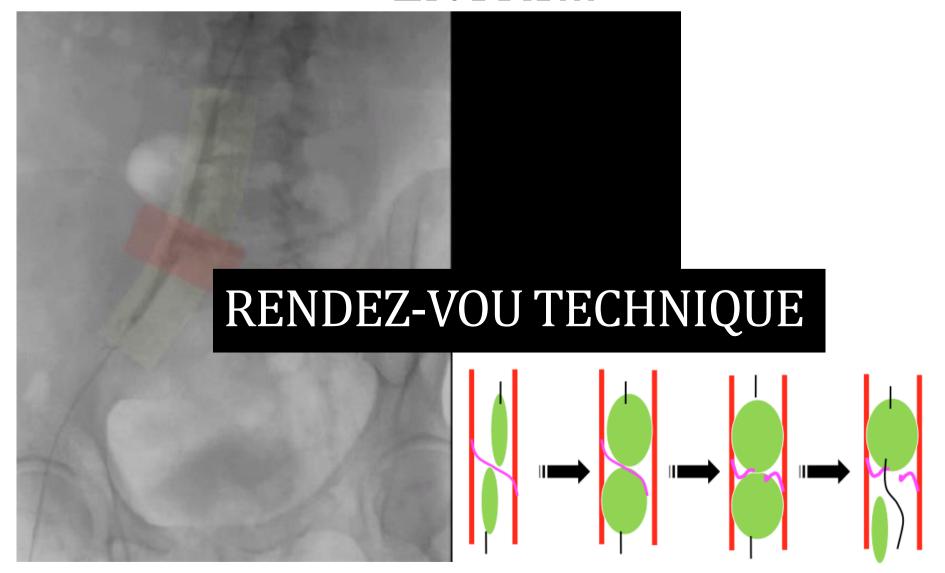
#### ...RECUPERATE THE WIRE FROM BELOW



CANNULATING THE SHEATH

**GOOSE-NECK** 

#### ....FACILITATE DISTAL RE-ENTRY...

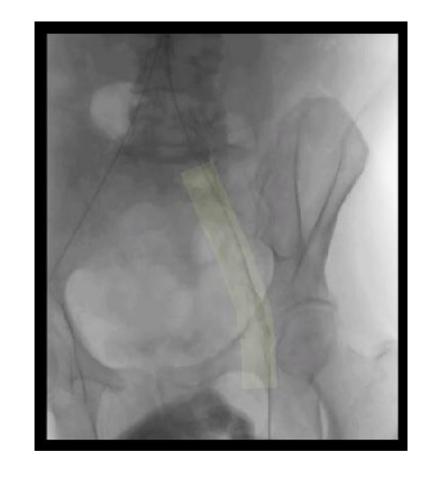


#### FEMORAL ARTERY INVOLVEMENT

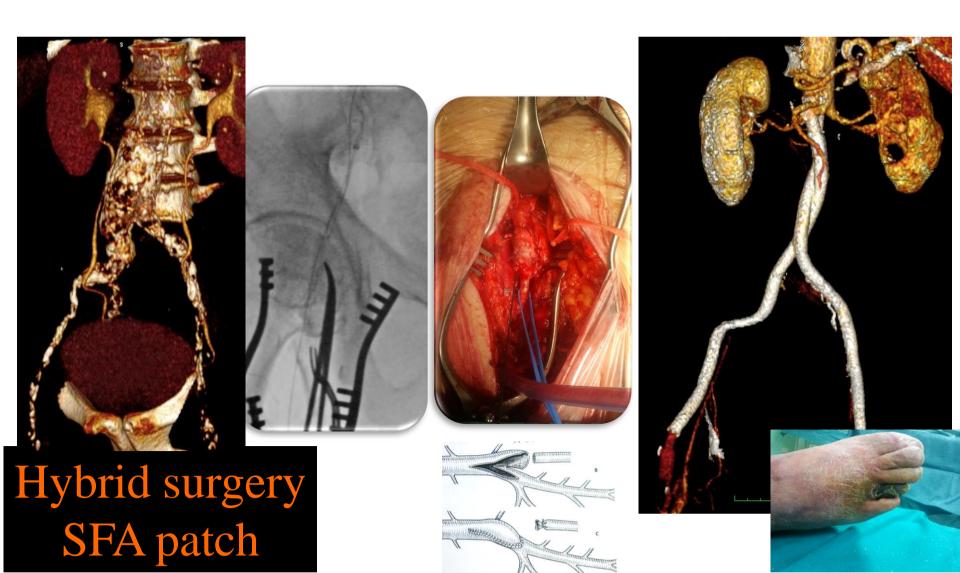
#### OCCLUSION CLOSE TO THE CFA



SFA puncture DFA puncture



#### FEMORAL ARTERY INVOLVEMENT

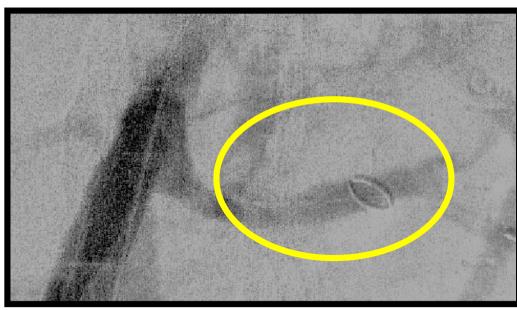


## THE WIRE FROM ABOVE IS EXCHANGED WITH ONE FROM BELOW

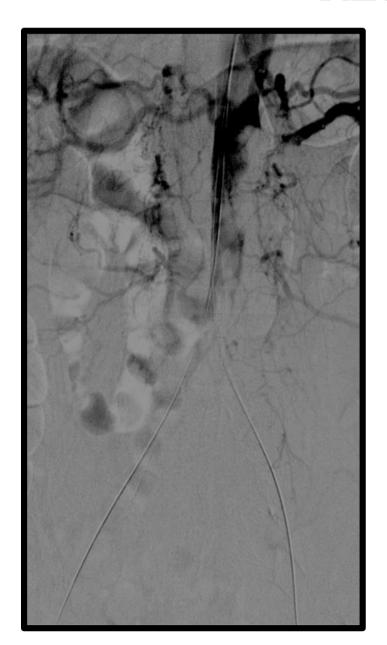


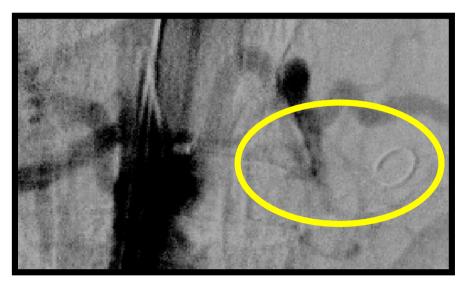
## RENAL ARTERIES PROTECTION FILTERS: ONE RENAL (MISALIGNED)





#### RESCUE





#### RESCUE

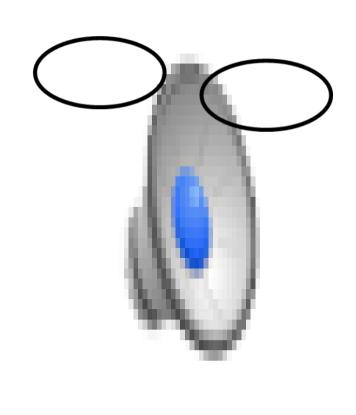




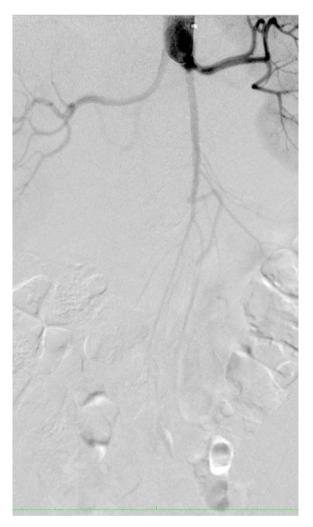


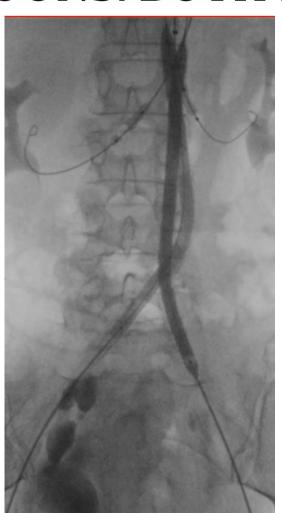
## RENAL ARTERIES PROTECTION FILTERS: BOTH RENALS





## RENAL ARTERIES PROTECTION BALLOONS: BOTH RENALS

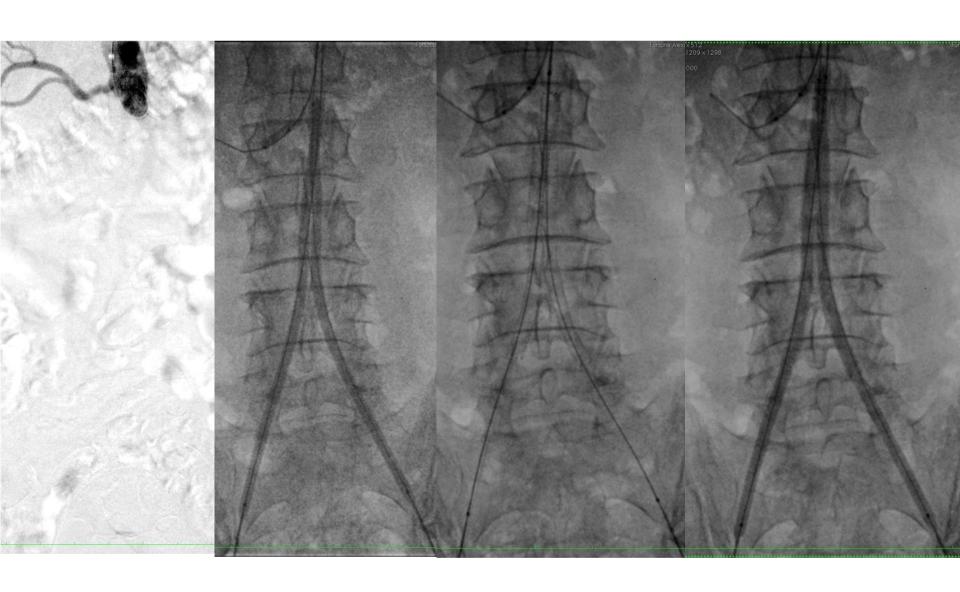






TWO SHEATHS FROM ABOVE

#### SOLITARY KIDNEY→ BALLOON!!



### RENAL ARTERIES PROTECTION PROXIMAL ANGIOPLASTY



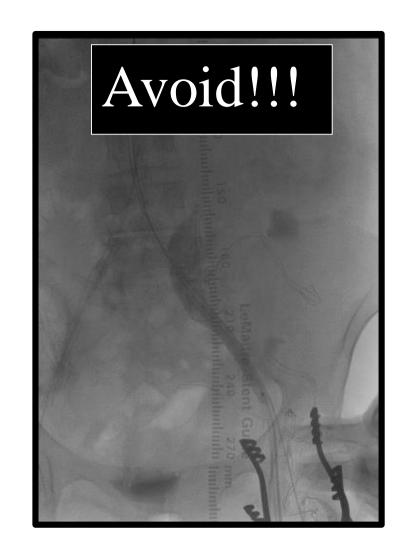
➤ Suboptimal to reduce thrombus squeezing (7-8 mm balloon)

#### DISTAL ANGIOPLASTY

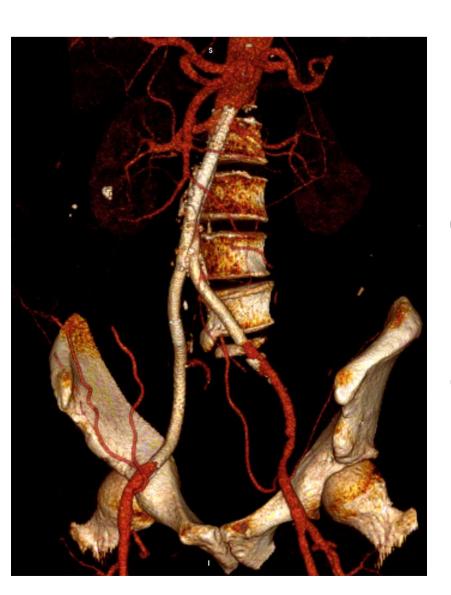
Suboptimal



to avoid rupture



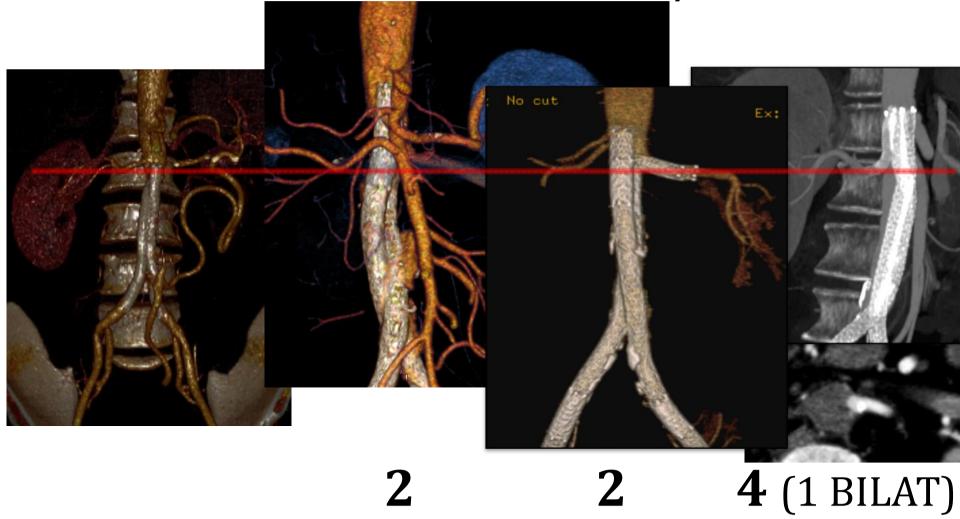
#### RENAL ARTERIES PROTECTION HUGGING BARE STENTS



One shot proc 6F sheath

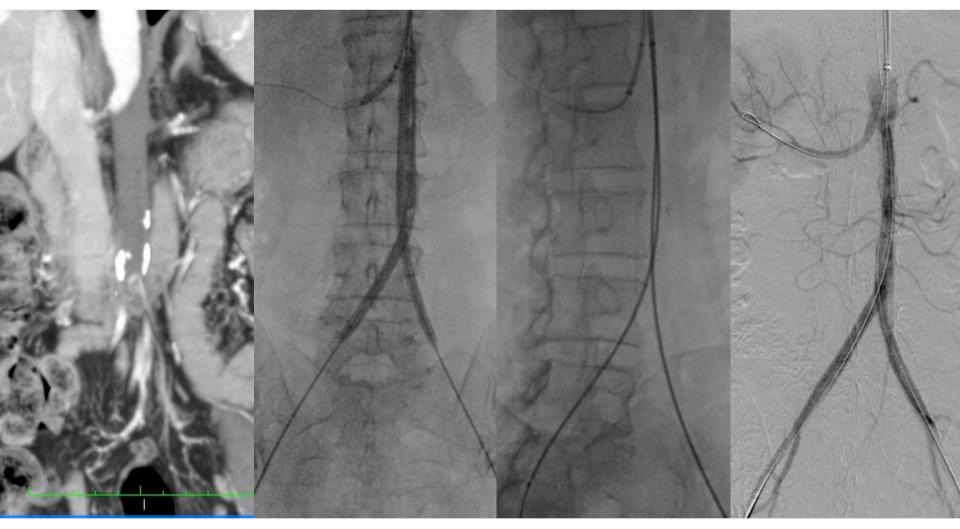
< thrombus dislodg

#### RENAL AA PATENCY → 8/19 PTS



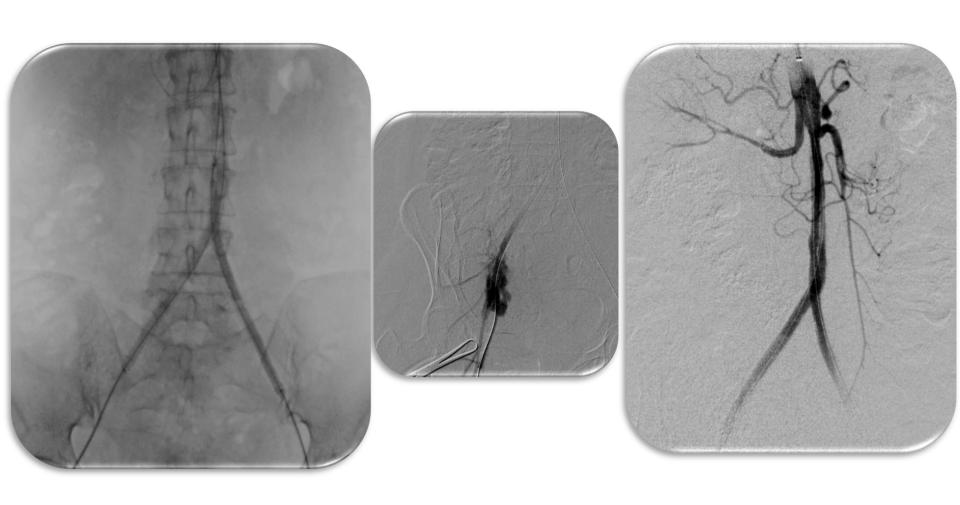
OpenCell-STENTS ABOVE THE RENALS OR ASSOCIATED RENAL STENTING OR CHIMNEY

## RENAL ARTERIES PROTECTION BALLOON: SOLITARY KIDNEY → CHIMNEY

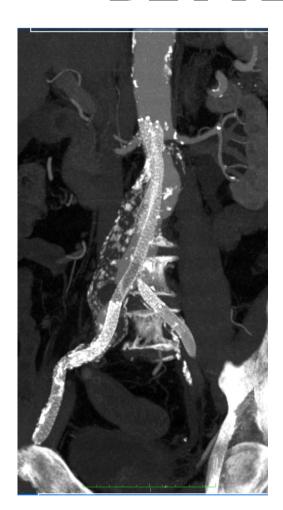


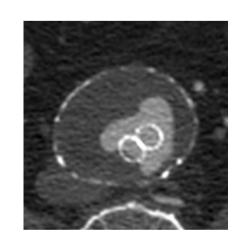
OPEN FIRST VIABAHN, THEN AORTIC STENTS

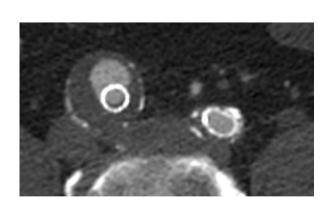
## COVERED STENT USED FOR ILIAC LESIONS



## COVERED STENT BETTER FOR ANEURYSMS



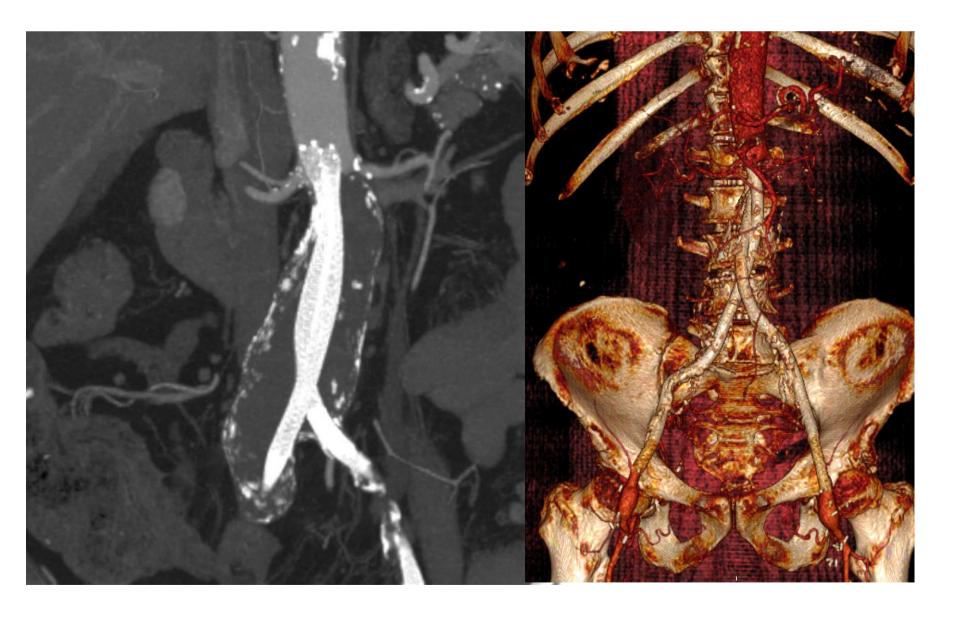






ANEURYSM REPERFUSION AT 3 YRS

#### RELYNING WITH VIABAHN



#### Leriche Syndrome 19 PTS FEB 2010 – OCT 2016 IMMEDIATE RESULTS

<ul><li>Death</li></ul>	0
Embolization	3
Retroper haemat (high puncture)	1
ARF (temporary dialysis)	
Stent occlusion *(treated)	1*

#### Leriche Syndrome 19 PTS FEB 2010 – OCT 2016

#### **EMBOLIZATION**

```
3/5 2010-2011 (2 TREATED)
filter (single) 1
wire 1
```

```
0/14 2011-2016
filter (single 3) 6
balloon (single 4) 8
```

## LATE RESULTS 19 pts follow-up 49.6 mths (2-80 mths)



Death 3 15.7%
 (6/24/41 mths unrelated)

Prim patency 89.5%

Sec patency 94.7%

Ren art patency 100%

AAA reperfusion (viabahn)

#### **CONCLUSIONS**

RECANALIZATION IS FEASIBLE

- SOME PRECAUTIONS ARE NECESSARY
  - RECANALIZE WITH THE SHEATH INSIDE LESION
  - PROTECTIVE MEASURES FOR RENALS
  - SUBOPTIMAL ANGIOPLASTY
  - □ IF THROMBUS PASSES THE ARTERIES → CHIMNEY

LONG TERM RESULTS ARE GOOD

# THANK YOU FOR THE ATTENTION