

MEET 2015, Nice



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Tips and tricks of the CERAB technique

Koen Deloose, MD

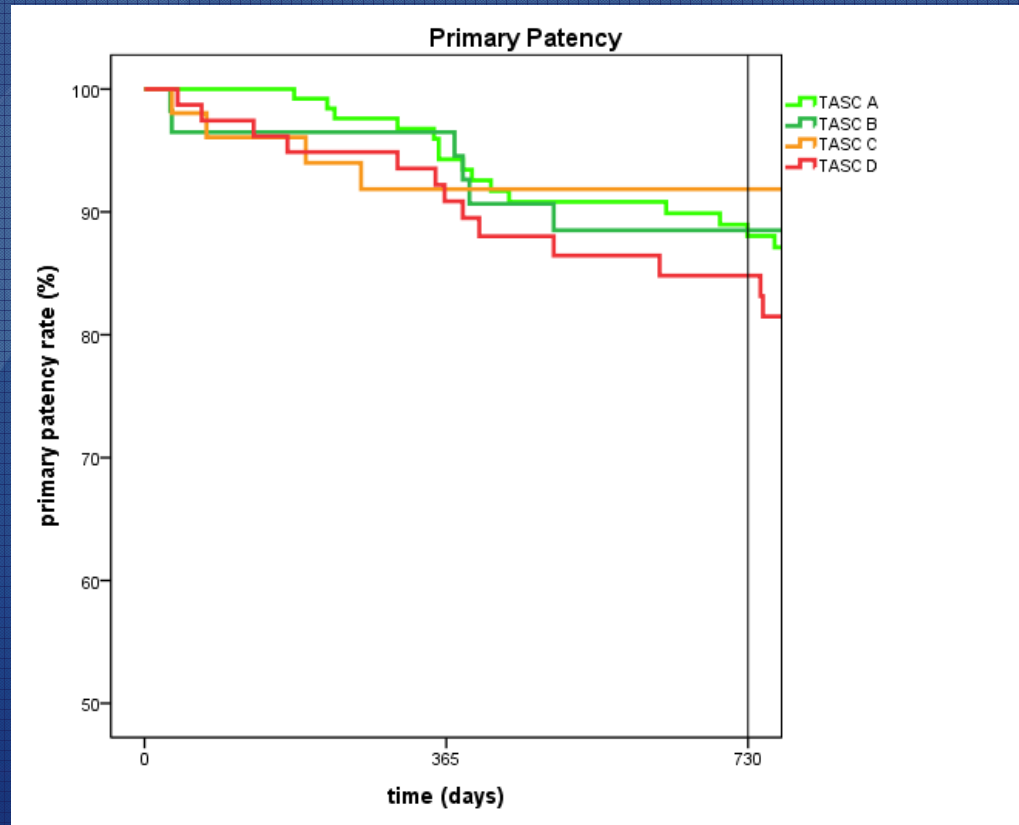
BRAVISSIMO Study : 24-month primary patency

TASC A

TASC B

TASC C

TASC D



C | 91.9%

B | 88.5%

A | 88.0%

D | 84.8%

P= 0.516

TASC	baseline	12MFU	24MFU	timepoint
A	132	113	95	patients at risk
B	58	51	39	patients at risk
C	55	43	35	patients at risk
D	80	68	51	patients at risk

Predictors for restenosis (patency failure)

Univariate regression analysis

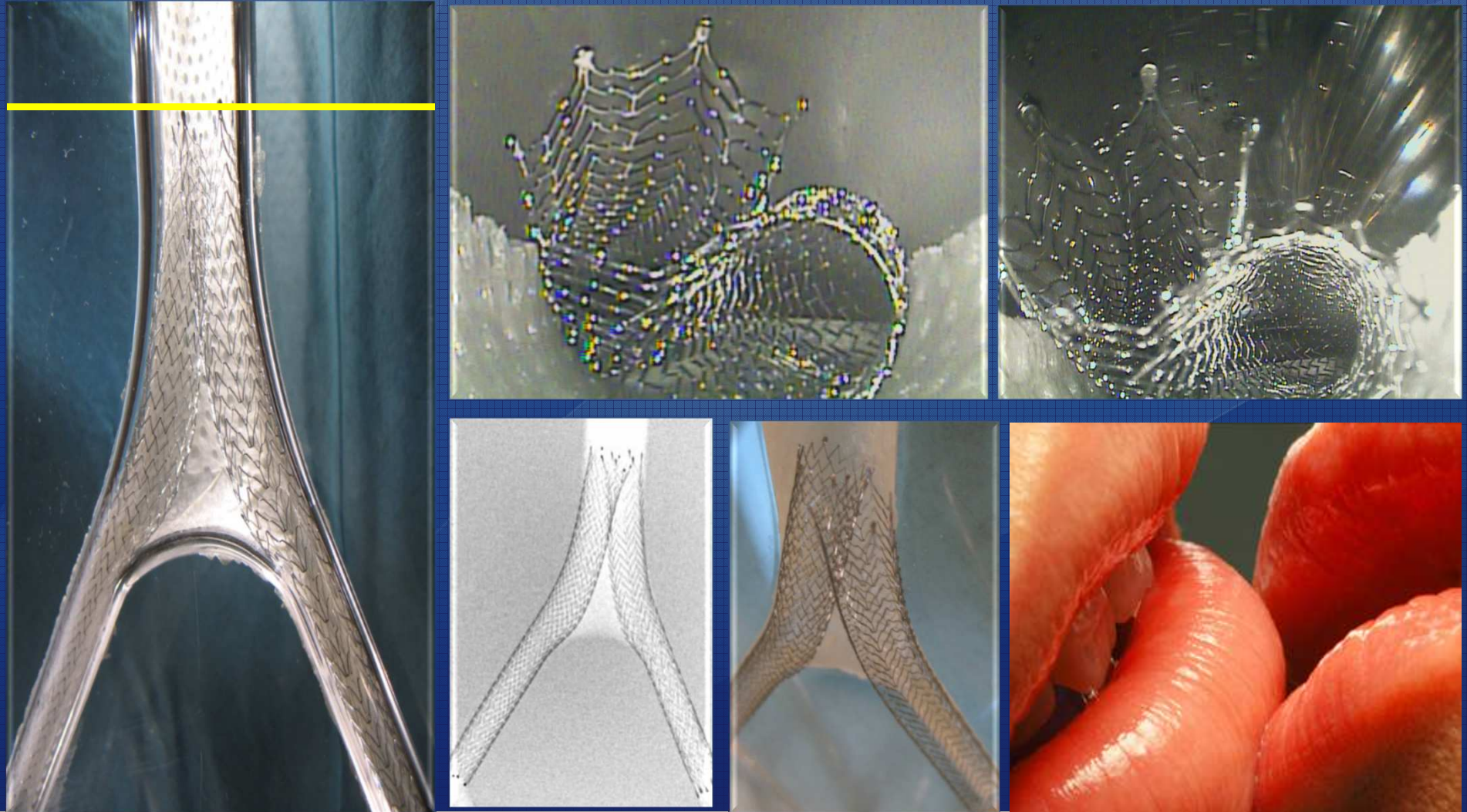
(Cox proportional hazards model)

Multivariable regression analysis

Obs	Parameter	ProbChiSq	Hazard Ratio
A	Kissing Stent (yes vs. no)	0.0012	3,272
B	Obesity (yes vs. No)	0.0109	2,490

TASC classification nor lesion length was (independently) predictive of restenosis

Kissing with conventional stents doesn't work optimally



Kissing with conventional stents doesn't work optimally

**Geometrical disturbances +
Chronical physical irritation**



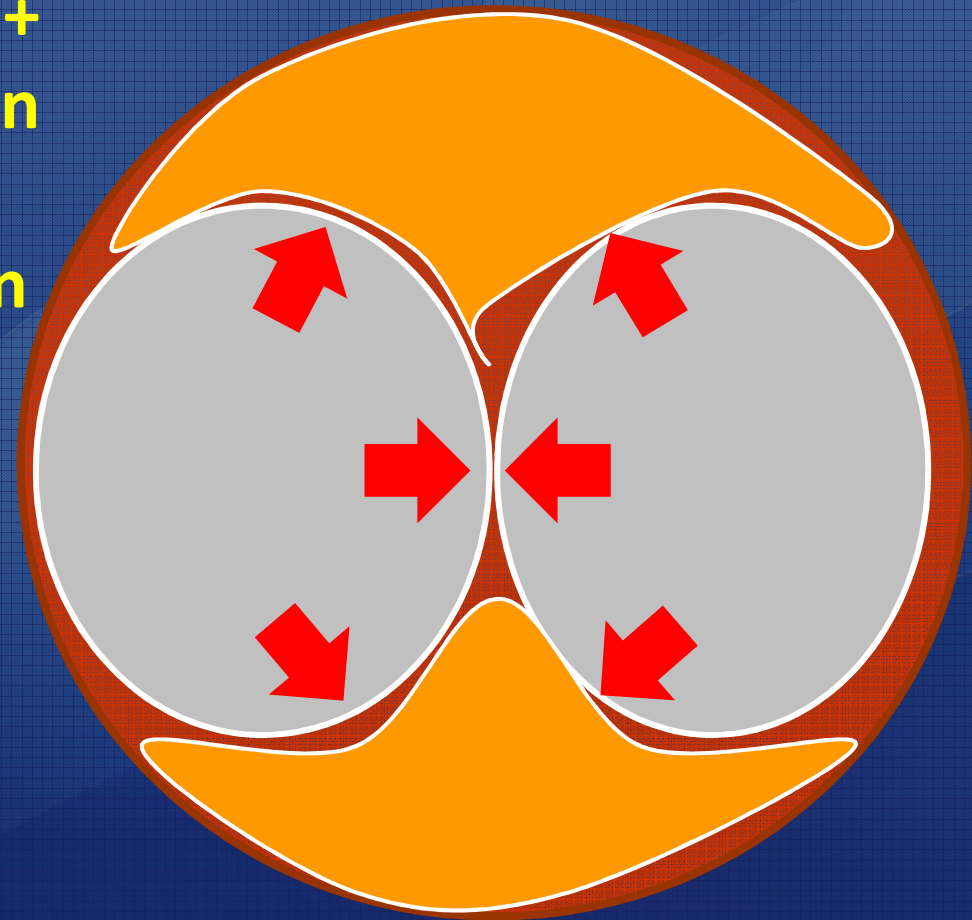
Nidus Thrombus formation



**Immature mesenchymal
formation**

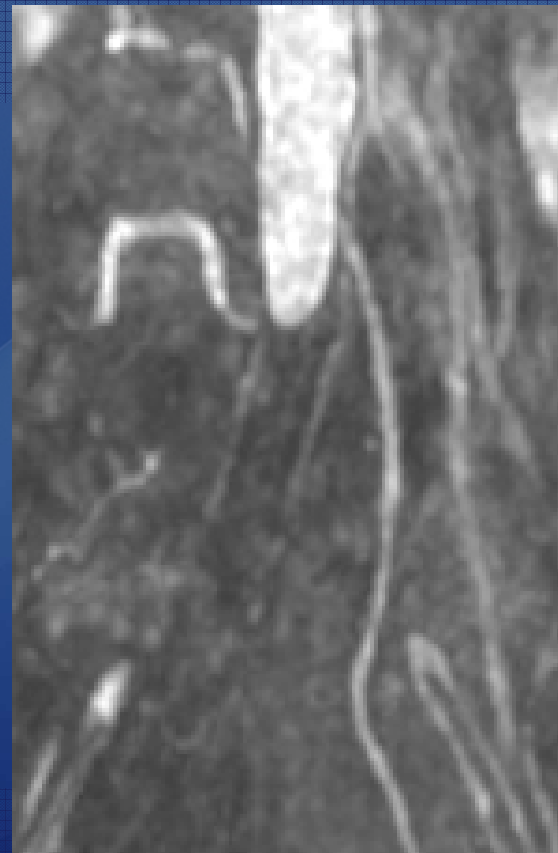


Intimal hyperplasia



The correct technique for aortic bifurcation lesions

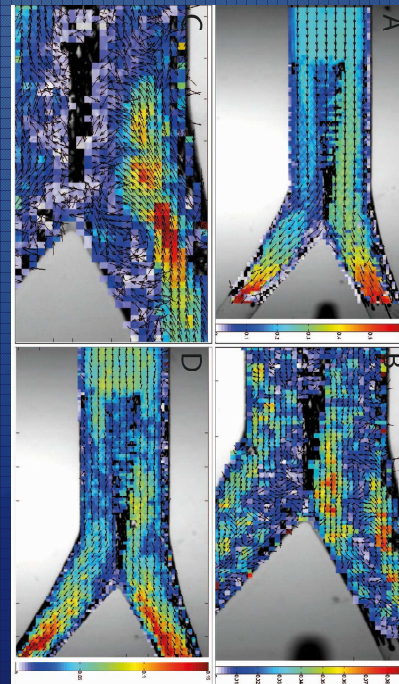
Covered **Endovascular** **Reconstruction** **Aortic** **Bifurcation**



With the courtesy of Peter Goverde, ZNA, Belgium

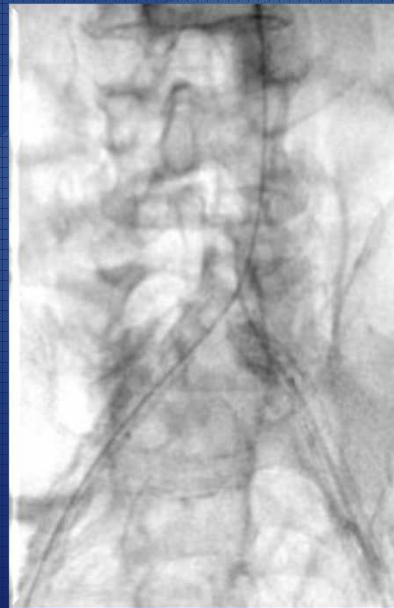
...the reasons to prefer covered stents in aorto-iliac bifurcation area....

- Avoidance of geometrical disturbances
- Avoidance of “nidus” formation
- Avoidance of physical irritation
- Perforation is not an issue
- Prevention of embolization



The correct technique : Access & Recanalization

- Long protective sheaths 9 and 7 F (23 cm) both CFA
- 0.035" workhorse wires
- Low profile 4-5F supporting catheters



With the courtesy of Peter Goverde, ZNA, Belgium

The correct technique : sizing

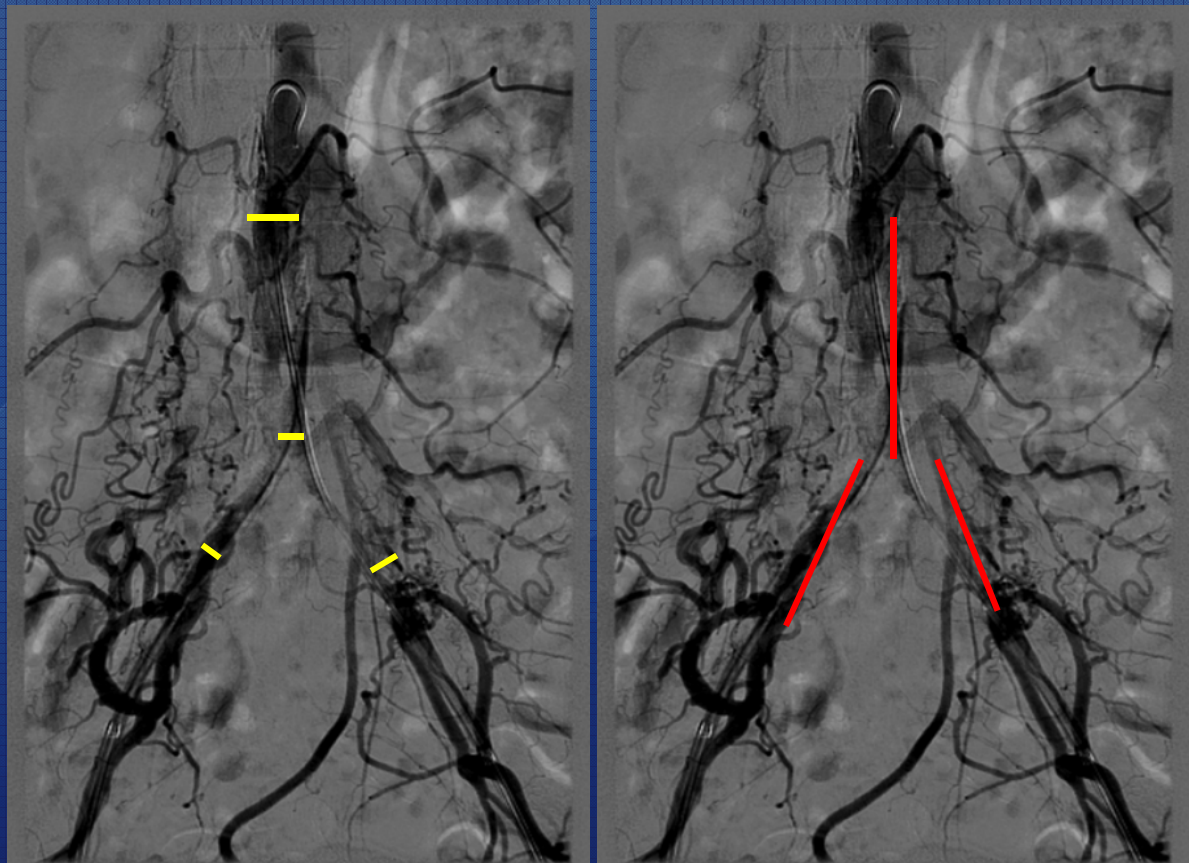
- PRE (CT) and PER (QVA)-PROCEDURAL SIZING !!!

Diameters

- ✓ Landing zone aorta
- ✓ Bifurcation
- ✓ Landingzones iliacs

Lengths

- ✓ Aorta
- ✓ iliacs



The correct technique : sizing

- PER-PROCEDURAL QVA-SIZING !

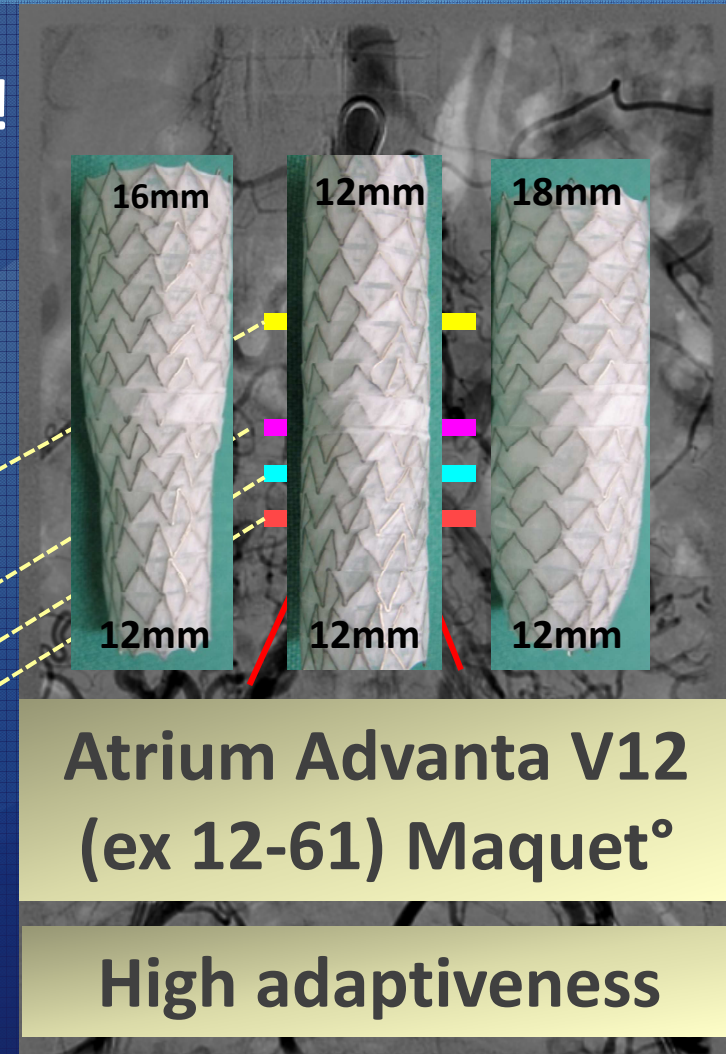
15 + 15 + 30 RULE

Proximal main stentgraft end

Overlap main – side stentgrafts

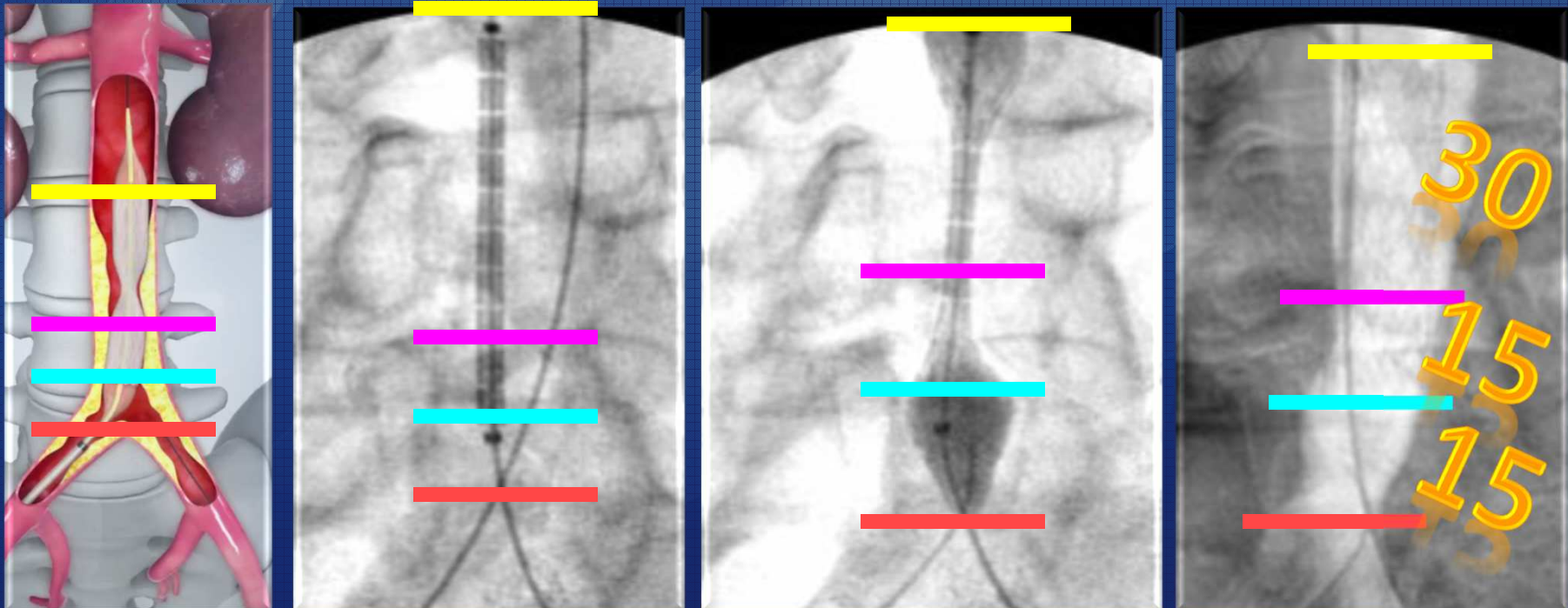
Distal main stentgraft end

Aorto-iliac bifurcation



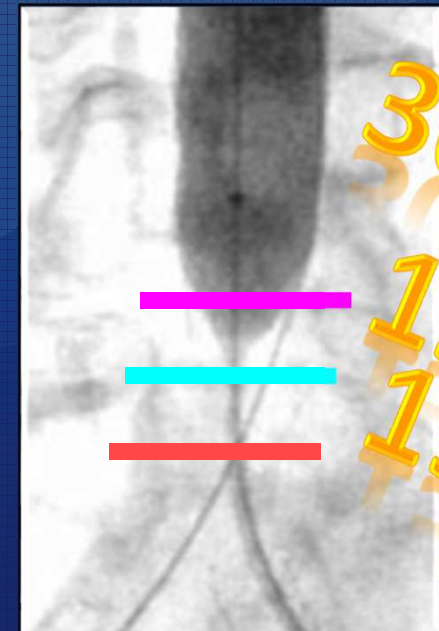
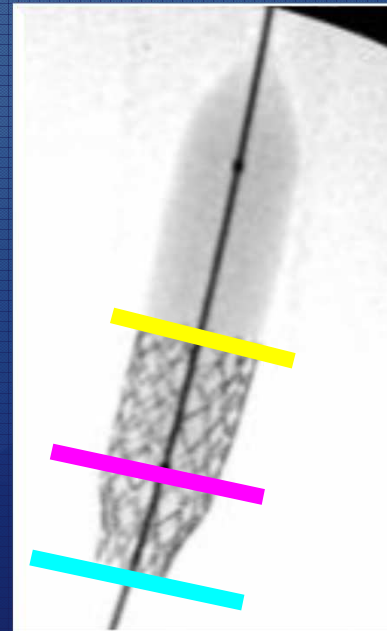
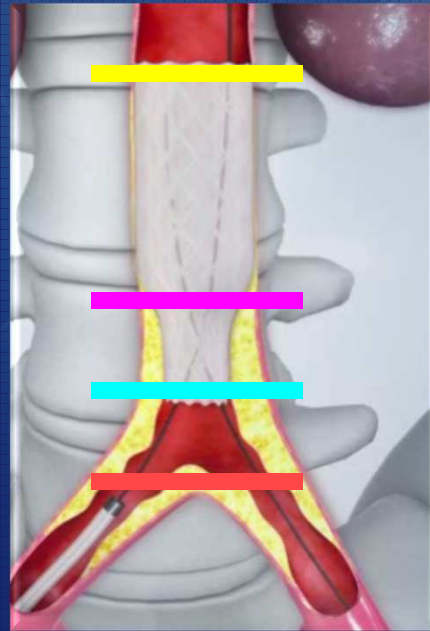
The correct technique : main stentgraft introduction

- 0.035" supportive wire
- Introduction of the Atrium Advanta V12 – 12 mm



The correct technique : “Conicalization”

- Introduction of a XL Latex balloon in the proximal main stentgraft Atrium Advanta V12- 12mm
- Manual inflation of the XL balloon up to “healthy” proximal aortic sizes : **conicalization**



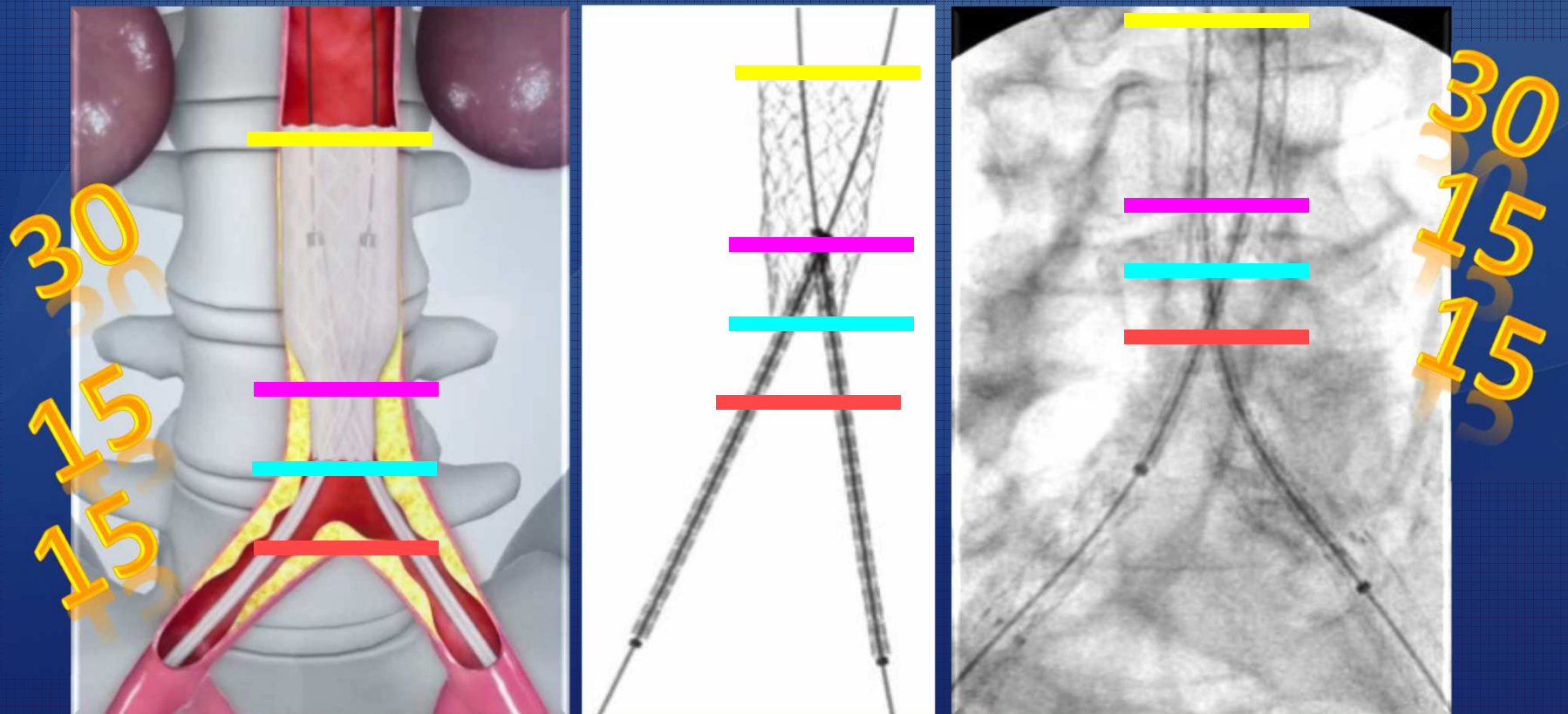
The correct technique : Re-pass main stentgraft by second guidewire

- 0.035" steerable workhorse wire + supporting catheter
- Check of intraluminal tract by pigtail catheter



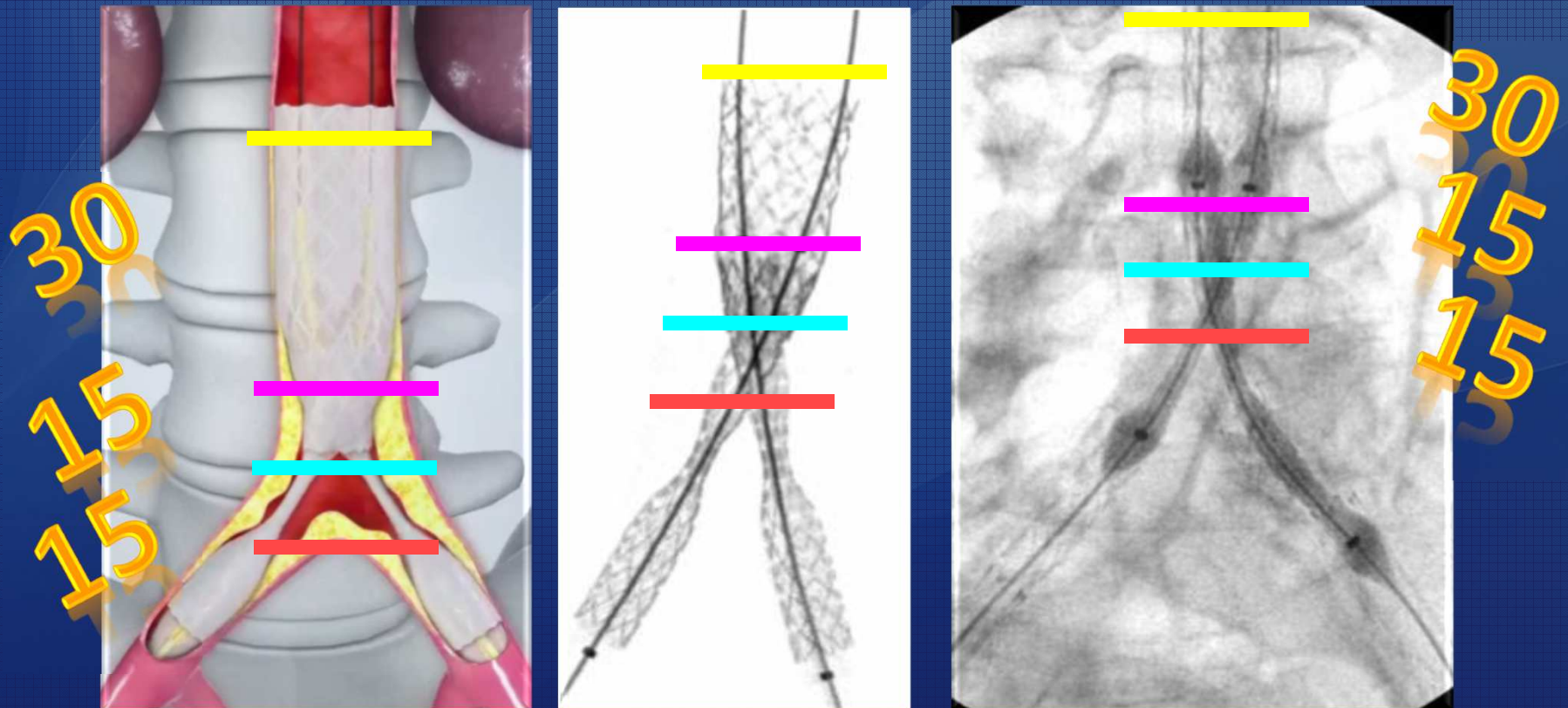
The correct technique : positioning of 2 iliac stentgrafts in kissing formation

- 0.035" supportive workhorse wires
- 2 stentgrafts Atrium Advanta V12 (Maquet) > iliac sized

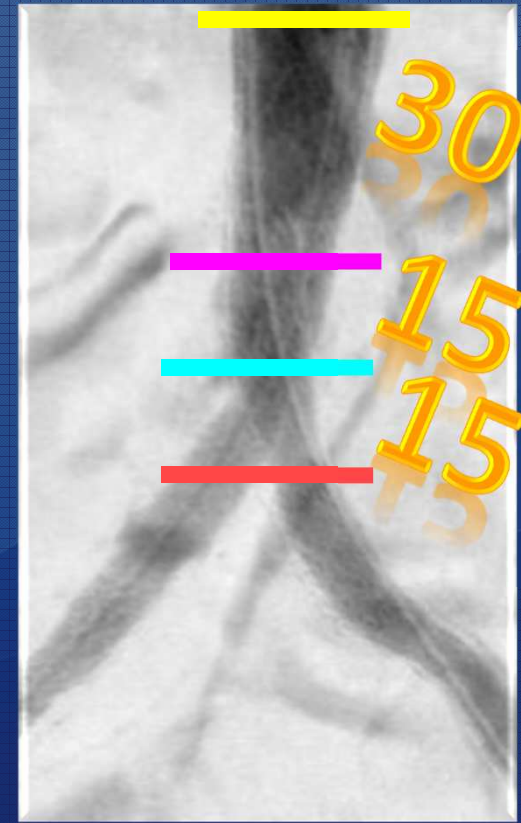
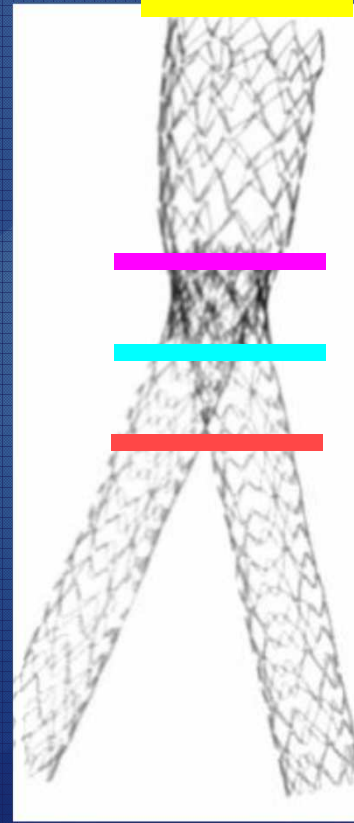
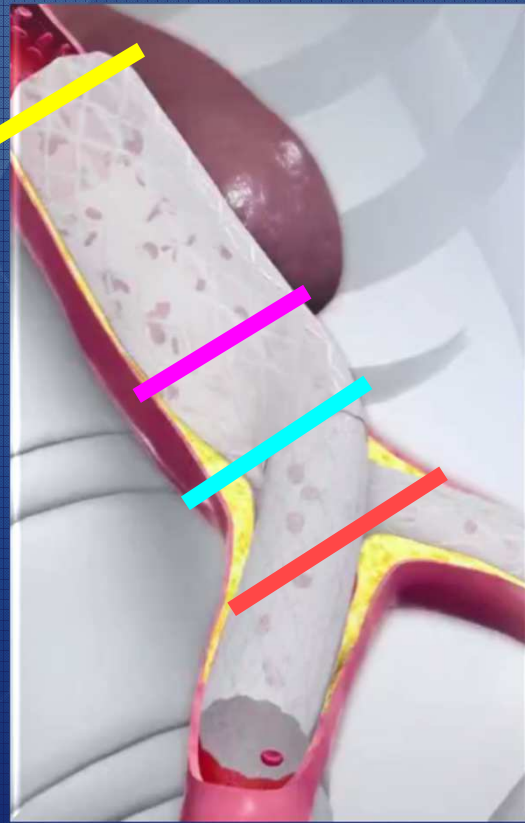


The correct technique : simultaneous inflation of 2 iliac stentgrafts

- 0.035" supportive workhorse wires
- 2 stentgrafts Atrium Advanta V12 (Maquet) > iliac sized

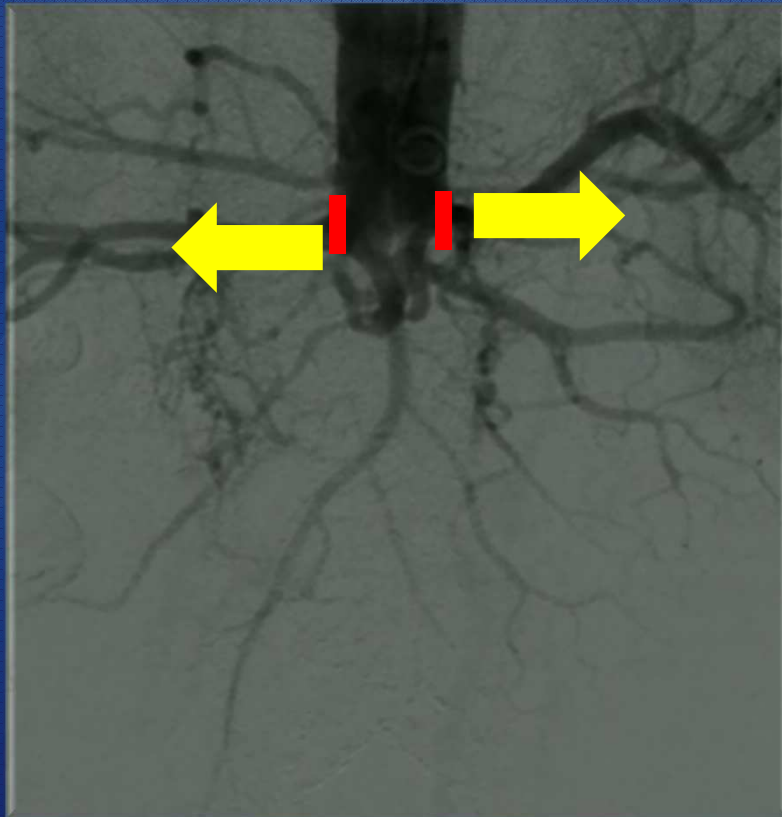


The correct technique : final result



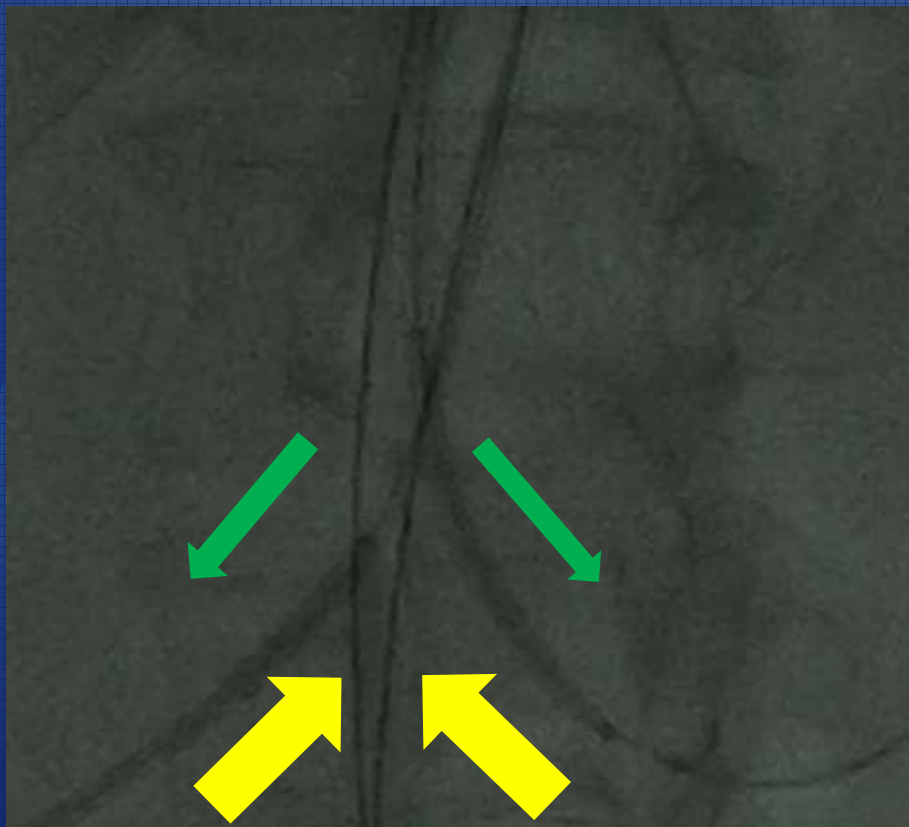
Extension to more complex cases...

- Midaortic / juxtarenal occlusive disease



Extension to more complex cases...

- Midaortic / juxtarenal occlusive disease : Chimney-CERAB



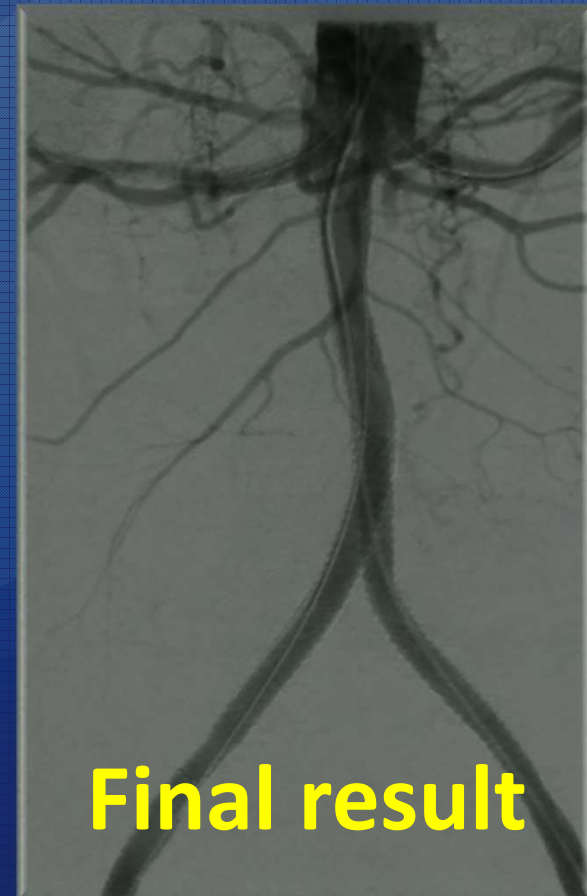
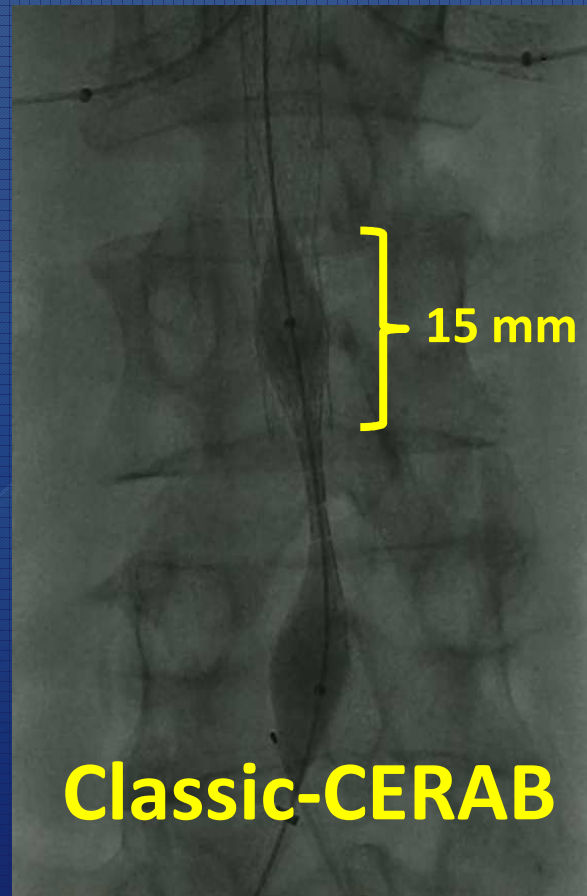
- Bi-femoral access (aorto-iliac)

- Bi-brachial access (renal)

Atrium Advanta V12
(Maquet)

Extension to more complex cases...

- Midaortic / juxtarenal occlusive disease : Chimney-CERAB



Conclusion

- **BMS (BE & SE) offer good to excellent iliac patency results, except for TASC D, kissing formation, where there is room for improvement**
- **Covered stents can realize this final improvement if used in a correct way**
- **The correctly sized and meticulous performed CERAB technique answers these expectations**
- **The more experience, the more complex cases like chimney-CERAB, you can perform.**