CONTROVERSES ET ACTUALITÉS EN CHIRURGIE VASCULAIRE

CONTROVERSIES & UPDATES IN VASCULAR SURGERY

JANUARY 23-25 2014

MARRIOTT RIVE GAUCHE & CONFERENCE CENTER PARIS, FRANCE

Endovascular repair of occlusive aortic syndrome: how I do it

Andrea Stella

www.cacvs.org

Disclosure

Speaker name:

.....

- ☐ 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)
- ✕ I do not have any potential conflict of interest

Acute and Long-term outcome of **Endovascular Therapy** for **Aortoiliac Occlusive** Lesions Stratified According to the TASC Classification

Sixt S et al..
J Endovasc Ther 2008; 15: 408-416

	Entire Cohort N = 438	TASC A (n=94)	TASC B (n=165)	**TASC C (n=133)**	**TASC D (n=66)**	
Stents	354 (81%)	74 (79%)	130 (79%)	96 (85%)	54 (85%)	
Technical success	97%	100%	96%	**93%**	**100%**	
30 days - Primary patency	97%	99%	98%	94%	95%	
1 year – Primary patency	86%	89%	86%	**86%**	**85%**	
1 year - Secondary patency	98%	100%	98%	98%	98%	

Acute and Long-term outcome of **Endovascular Therapy** for **Aortoiliac Occlusive** Lesions Stratified According to the TASC Classification

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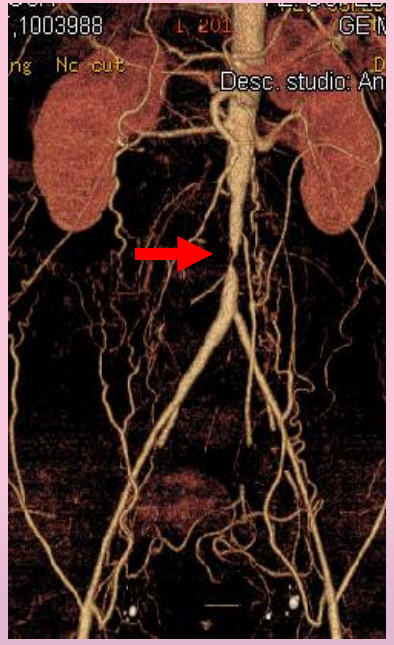
Stents	96 (85%)	54 (85%)
Technical success	**93%**	**100%**
30 days - Primary patency	94%	95%
1 year – Primary patency	**86%**	**85%**
1 year - Secondary patency	98%	98%

Different Pattern - Different Strategy

- Aortic lesions
- Aorto-iliac stenosis and occlusion
- Aortic occlusion



Case # 1:
Infrarenal aortic stenosis

AORTIC STENT

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Case # 1:
Infrarenal Aortic Stenosis

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Chief: Prof. Andrea Stella

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RETROGRADE FEMORAL RECANALIZATION

Case # 2:

Infrarenal aortic stenosis

+

TASC D Iliac lesion

(Femoral approach)

Technical solutions

HYBRID APPROACH

Case # 3:
TASC D Iliac lesion (Hybrid approach)

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BRACHIAL APPROACH

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Case # 4:

Carrefour aortic occlusion

+

TASC D bilateral Iliac lesion

(Brachial approach)

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TOTAL OCCLUSION

SUCCESSFULL THROMBOLYSIS

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Case # 5:
Aorto-Iliac Total Occlusion

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TOTAL OCCLUSION

THROMBOLYSIS FAILURE

Case # 4
Female, 61y-old, Rutherford III,TASCD

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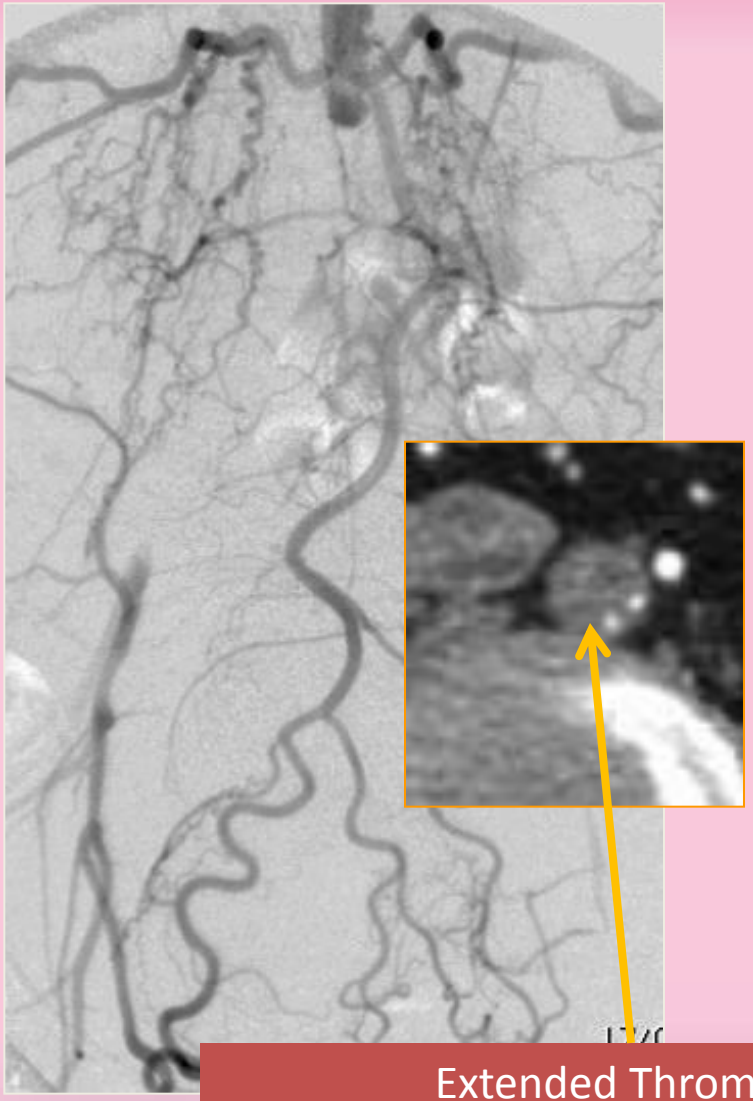
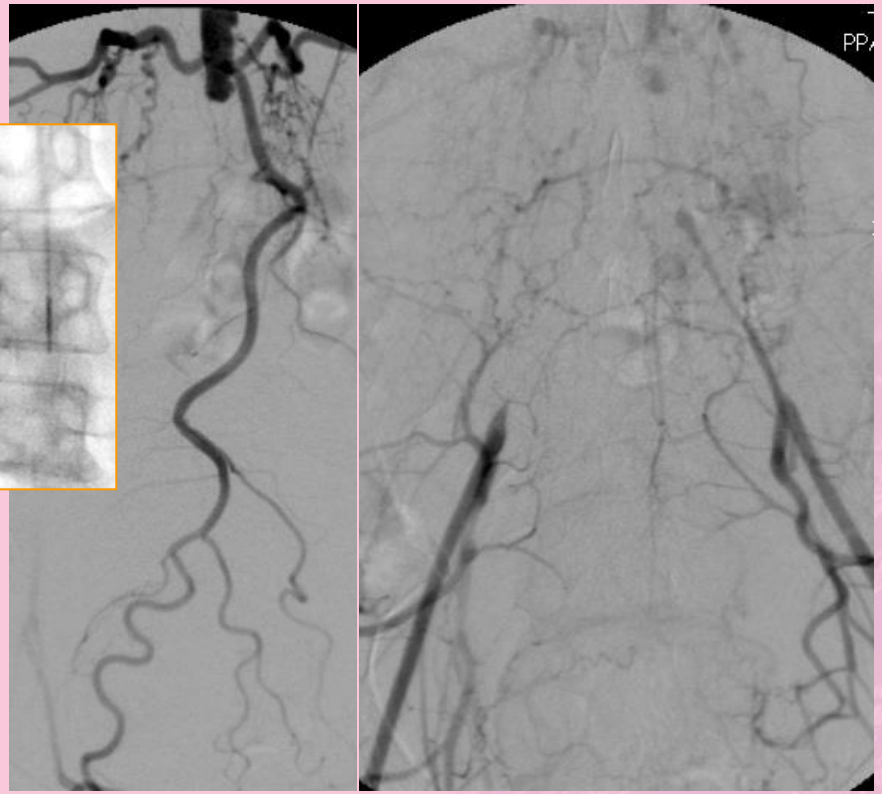
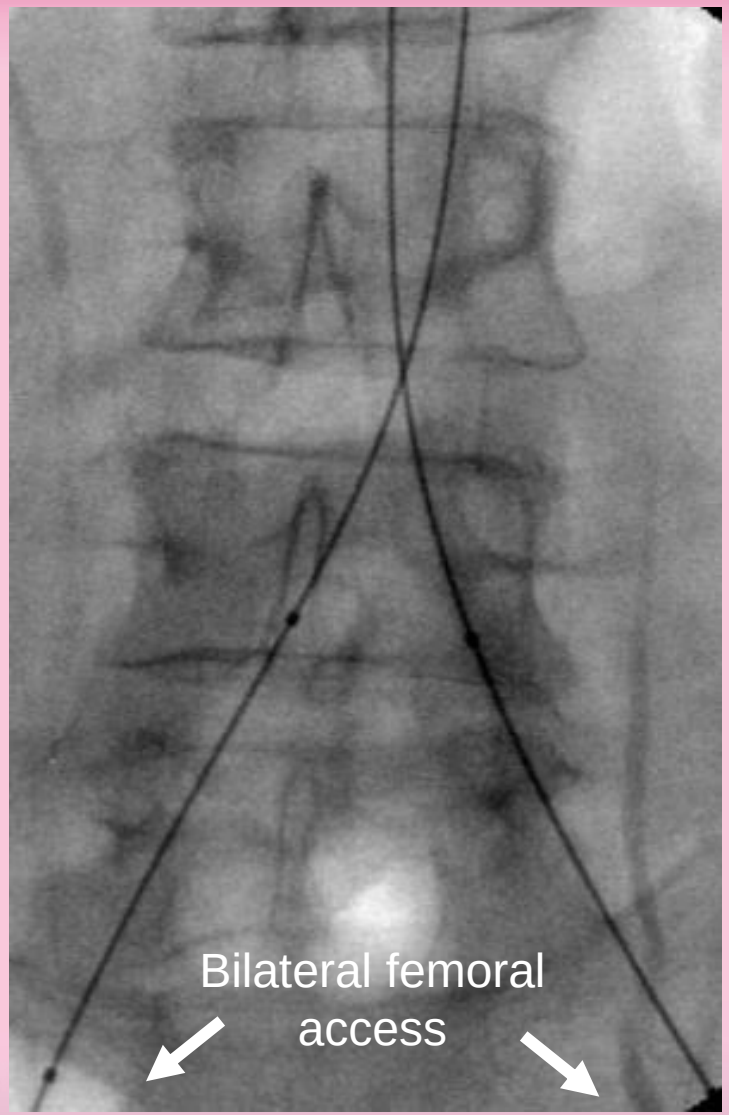


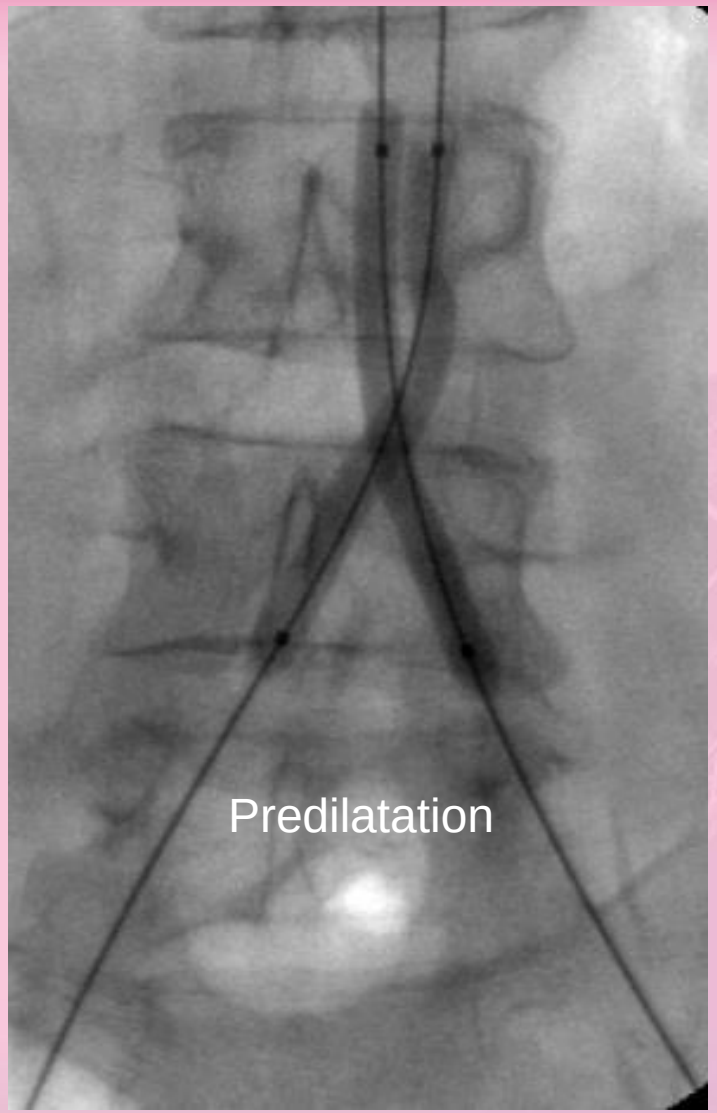


Angiogram post 24h UK therapy

Extended Thrombus

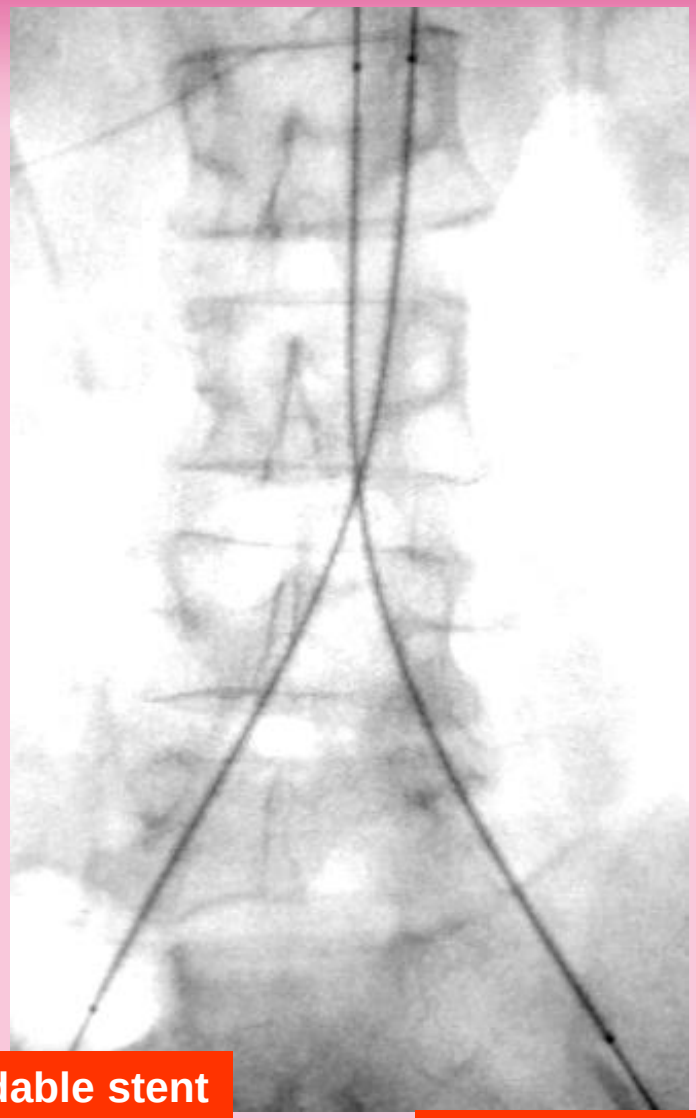
Case # 4
Female, 61y-old, Rutherford III,TASCD



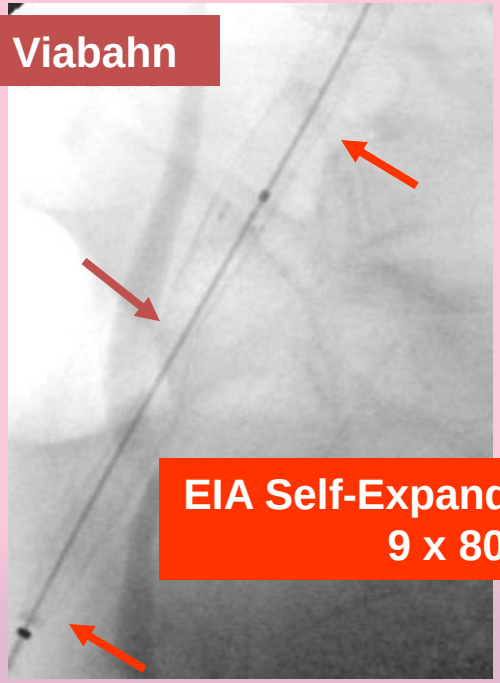


Cross the lesions by Terumo stiff guidewire and verterbral catheter

Viabahn® 8 x 10 Right side + Viabahn® 8 x 100 Left side

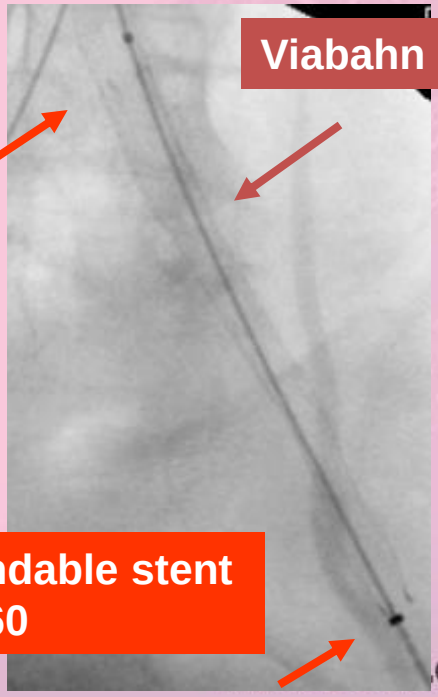


Overlapping = 2 cm



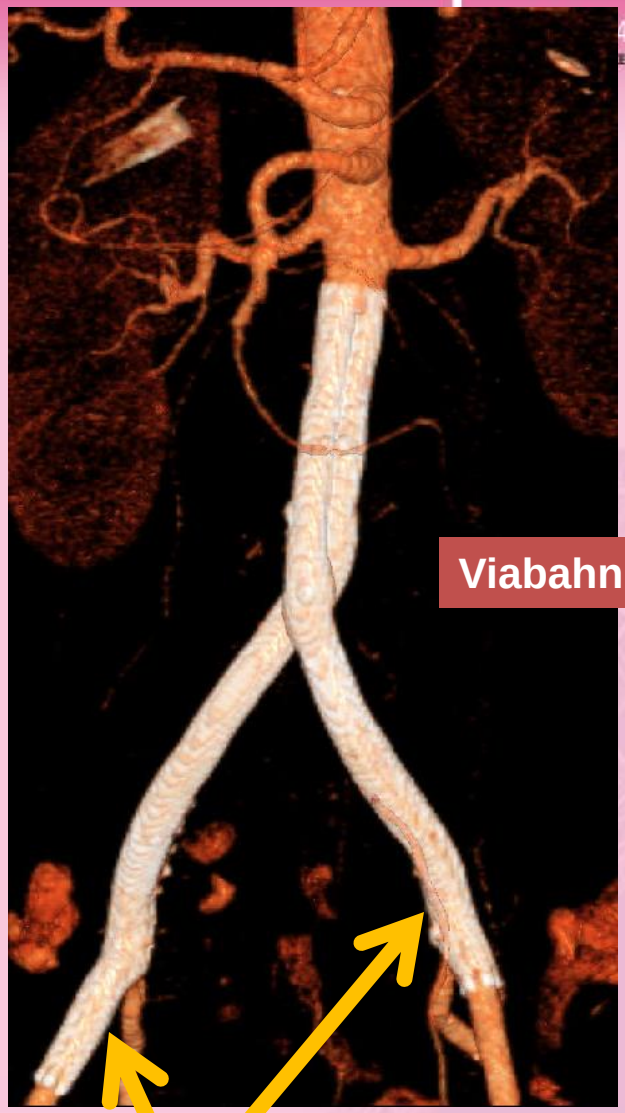
EIA Self-Expandable stent 9 x 80

Overlapping = 2 cm



EIA Self-Expandable stent 9 x 60

Final Result



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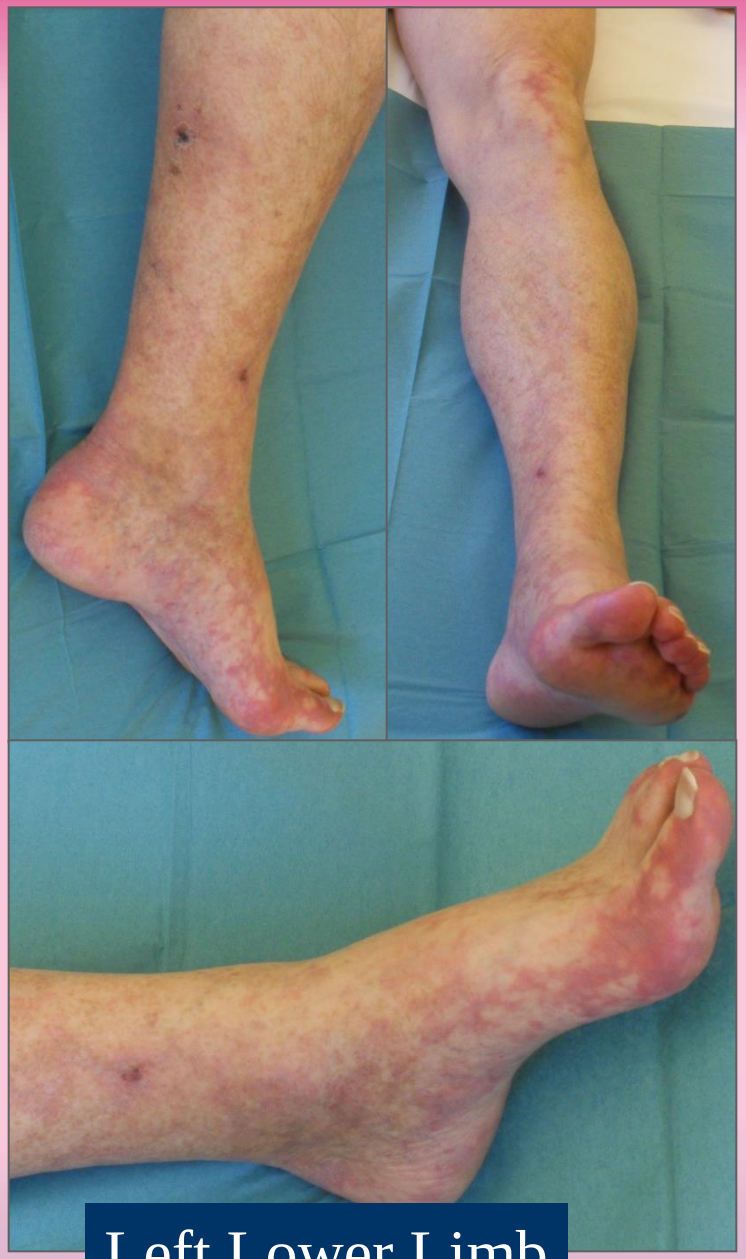
36 hours UK therapy

Self-Expandible stent

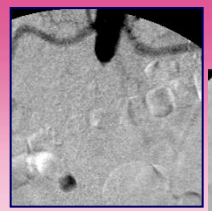
Final Results

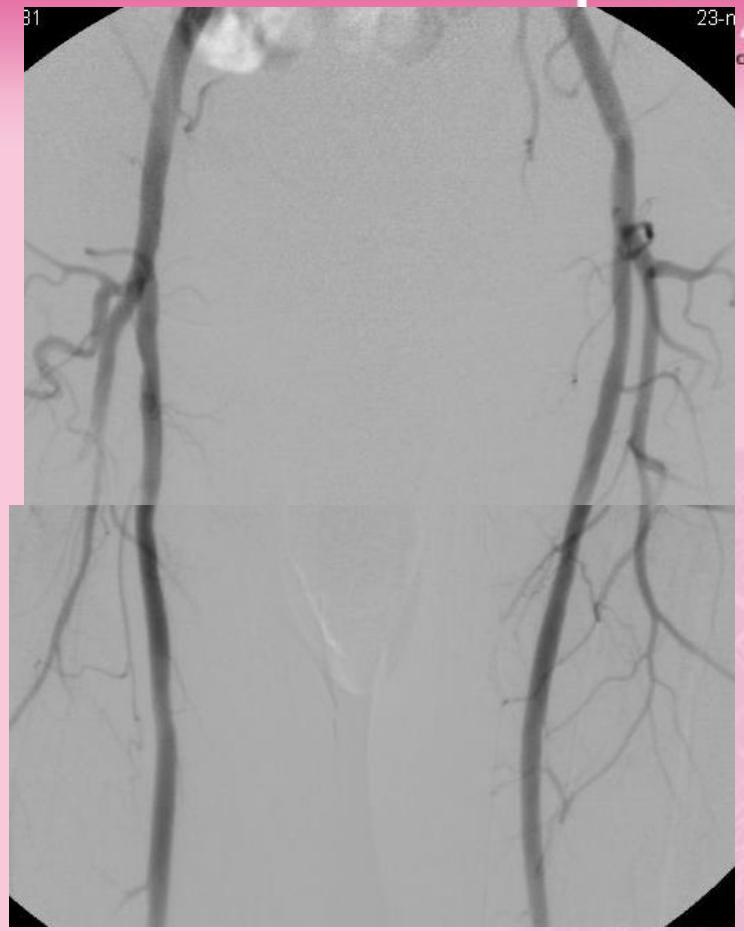
Follow-up 49 gg



Left Lower Limb

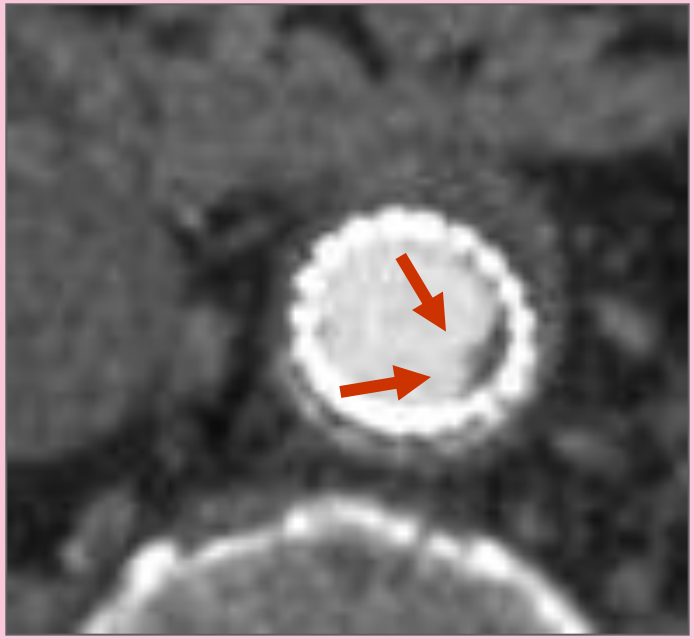
Right lower limb

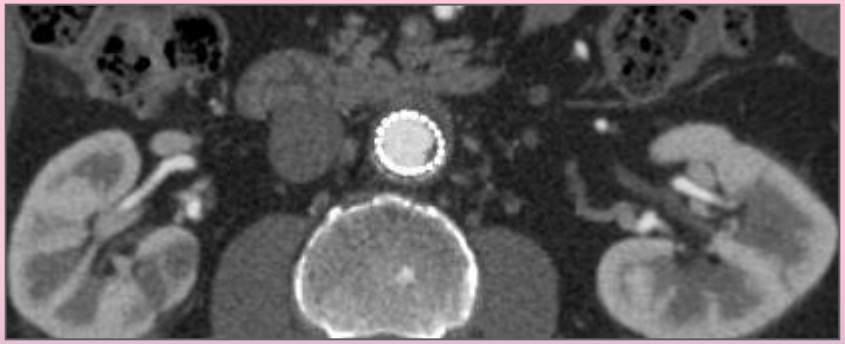




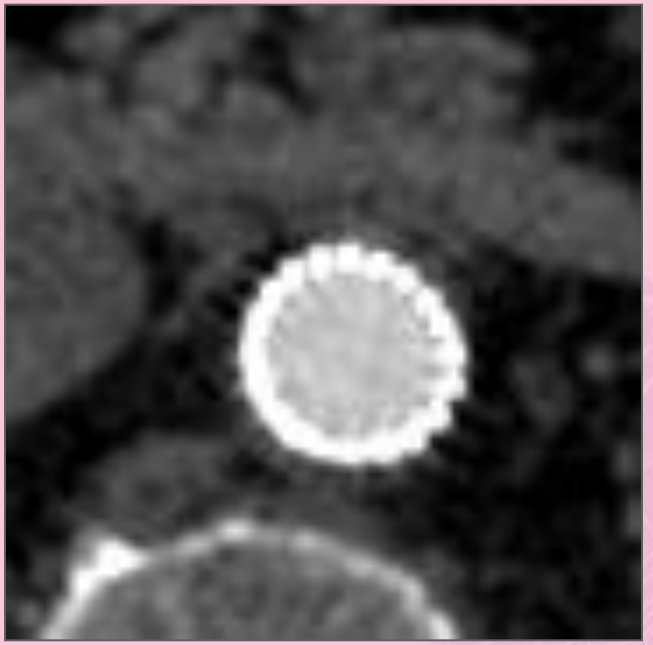
Angio-CT scan

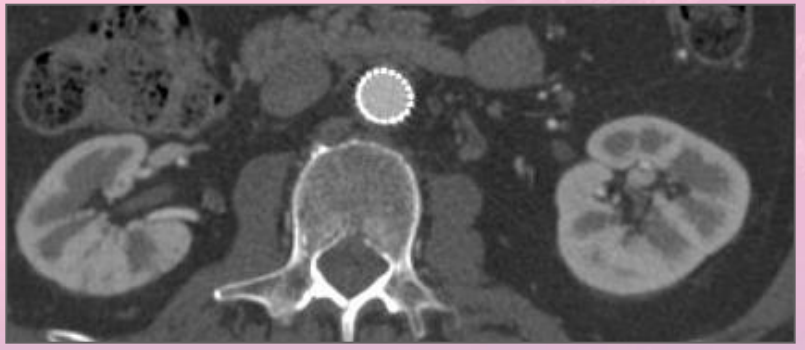
Follow-up at 5 days





Follow-up at 49 days





Wound healing trophic leasion

5 months

6 months

10 months

Endovascular Treatment of Type D Lesions of Infrarenal aorta

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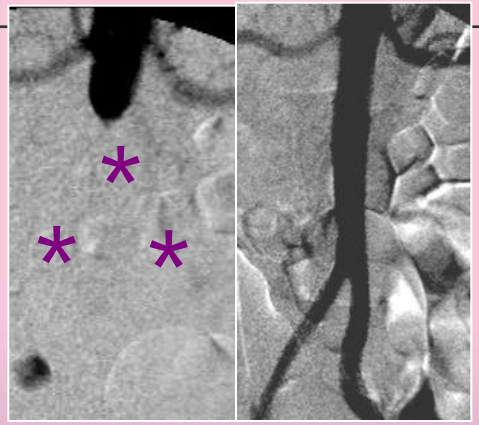
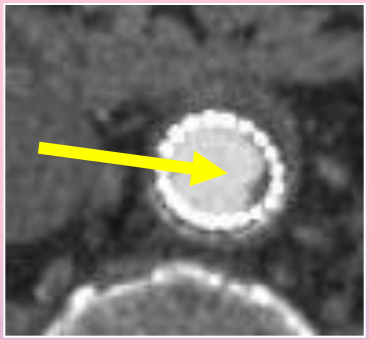
Authors	Year	No of patients	Thrombolysis	Technical success	Mortality	Minor Complications	Follow up (mean-months)	PP / SP
Long AL et al	1993	2	-	100%	-	-	15.1	100%
Diethrich EB et al	1993	6	100% (UK)	100%	-	2 (embolization)	33	100%
Pilger E et al	1994	?						
Martinez R et al	1997	6	100% (UK)	100%	-	?	60	100%
McPherson SJ et al	1999	1						
Badiola et al	1999	?						
Nyman U et al	2000	9	33% (r-TPA)	78%	-	?	11	100%
Karkos CD at al	2000	1	-	100%	-	1 (LRA stenosis)	11	100%
Current Study	**2013**	**9**	**100% (UK)**	**100%**	**0**	**2 (1 leg embolization, 1 hematoma)**	**31.3**	**100%**





Peripheral Embolization

Endovascular recanalization

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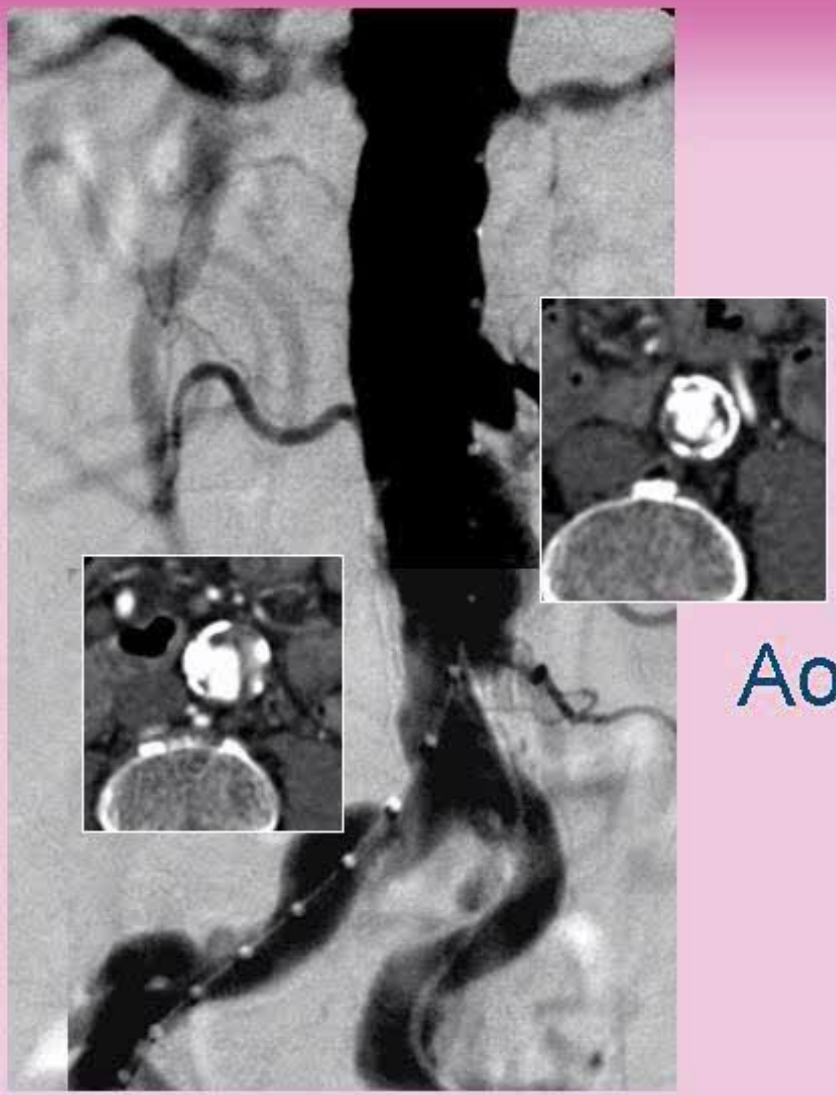

Case # 6:

Aorto - Iliac "Soft" stenosis

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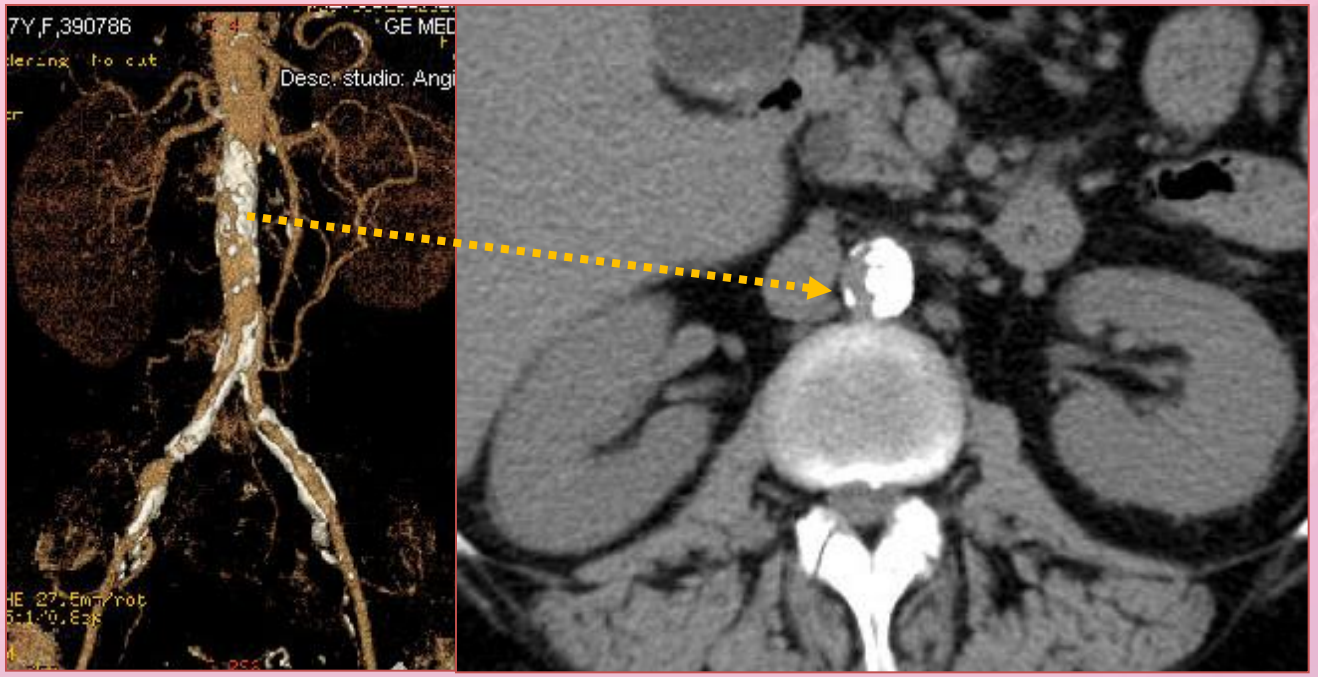
Chief: Prof. Andrea Stella

Conclusion

A preoperative CT scan is helpful in documenting the amount of calcification and predicting the risk of inability to dilate this aortic lesion.



Endovascular Therapy Today

- Inclusion Criteria

  - no calcified infrarenal aorto-iliac lesions > 80%
  - calcified infrarenal aorto-iliac lesions < 80%
  - Aorto-iliac occlusion with clinical worsening in the last six months

- Esclusion Criteria

  - “coral reef”aortic lesions
  - calcified infrarenal aorto-iliac lesions > 80%
  - Chronic total aorto-iliac occlusion

Conclusion

Endovascular treatment
of infrarenal aortic occlusion – TASC D

Author	Diethrich (1983)	Nyman (2000)	Moise (2009)	Varcoe (2011)	Kim (2011)	TOT
Patients	7	30	31%	8	49%	125
Technical succes	71.4%	83.3%	80.6%	100%	83.4%	82.9%
Mortality	0%	6.6%	0	0%	2.0%	1.7%
Overall Morbidity	28.6%	10%	41.9%	12.5%	16.3%	21.8%
Access site complications	0%	3.3%	19.4%	12.5%	14.3%	12.0%
Limb embolization/Thrombosis	28.6%	3.3%	6.5%	0%	8.2%	10.6%
Renal feilure	0	0%	16.1%	0%	6.1%	4.4%
Primary patency	100%	80%	66%	100%	70%	83%

Marrocco et al.
J Cardiovasc Surg 2012;53:307-12

Endovascular Therapy # 137

Lesion	TASC B/C/D	n	(%)
Aortic Focal Stenosis	14/0/0	14	10.2
Aorto Iliac lesions (Stenosis and occlusion)	7/5/0	12	8.8
Iliac lesions No aortic envolvment	23/64/15	102	74.5
Aortic Occlusion	0/0/9	9	6.5

Endovascular Therapy # 137

Lesion	TASC B/C/D	n	Clinical Success
Aortic Focal Stenosis	14/0/0	14	**100%**
Aorto Iliac lesions Stenosis and occlusions)	7/5/0	12	**68.2%**
Iliac lesions	23/64/15	102	**83.3%**
Aortic Occlusion	0/0/9	9	**100%**

Distal worsening

Clinical success: More than I Stage Rutherford improvement

Endovascular Therapy # 137

Lesion	TASC B/C/D	n	Thecnical Success (%)	P Patency (%)	Minor Complication N-(%)
Aortic Focal Stenosis	14/0/0	14	100	100	0
Aorto Iliac stenosis	7/5/0	12	100	100	1-(8.3%)
Iliac Occlusion	23/64/15	102	100	95.2	1-(0.9%)
Aortic Occlusion	0/0/9	9	100	100	1-(11%) 1-(11%)

36 month Follow-up