

Venous stenting: May Thurners, a patient story

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Disclosure

Speaker name:

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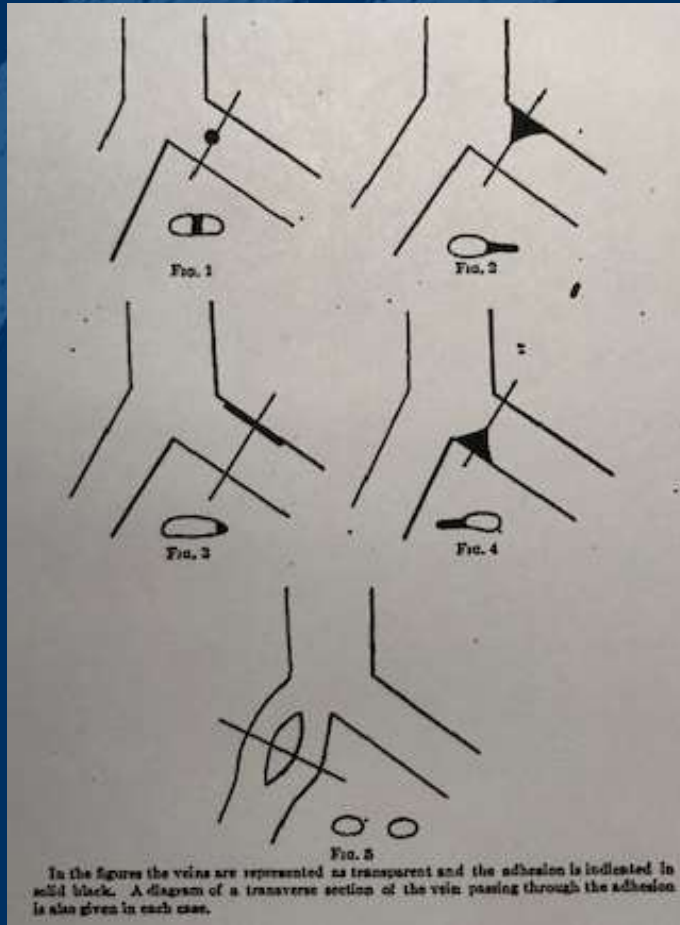
I have the following potential conflicts of interest to report:

- Consulting
- Employment in industry
- Stockholder of a healthcare company
- Owner of a healthcare company
- Other(s)

Speaker honoraria (BARD/BD, Optimed, Biotronik)

- I do not have any potential conflict of interest

Historical background



Left-sided predilection of thrombosis

Virchow R. Arch Path Anat 1851

Intrinsic lesions in 33% of cadavers

McMurrich JP. Am J M Sc 1908;135:342-6

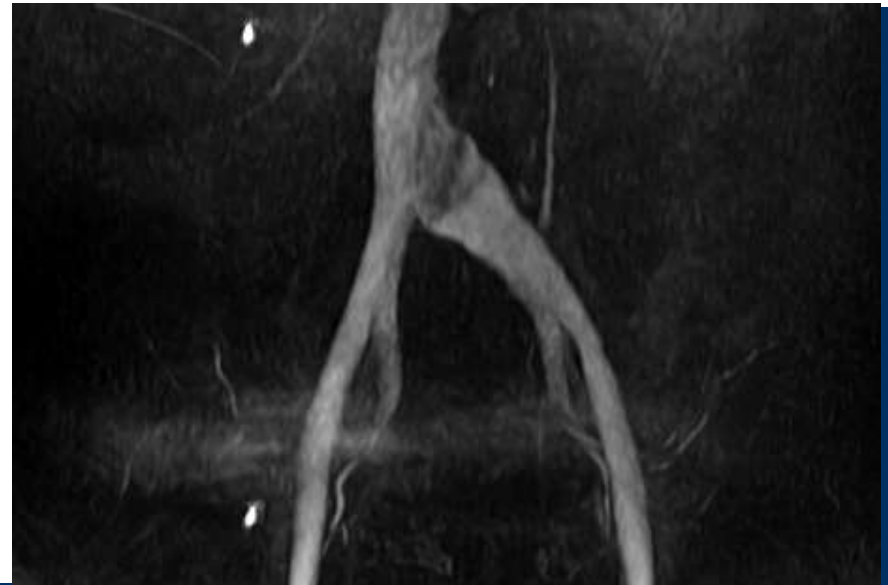
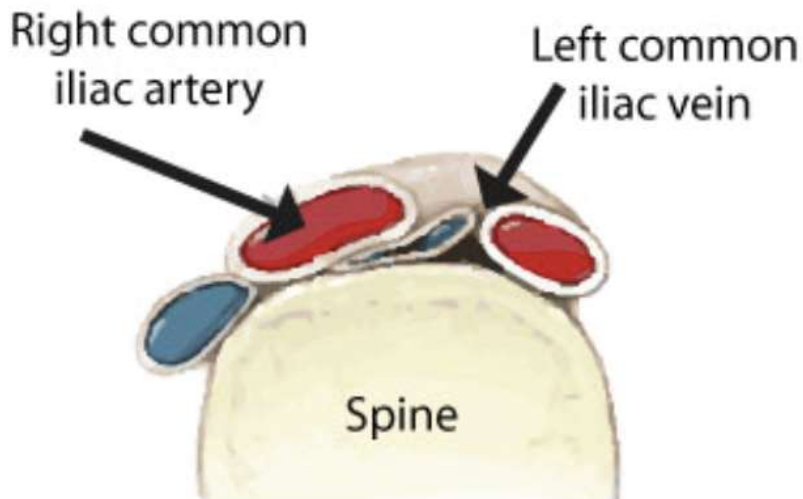
The iliac compression syndrome

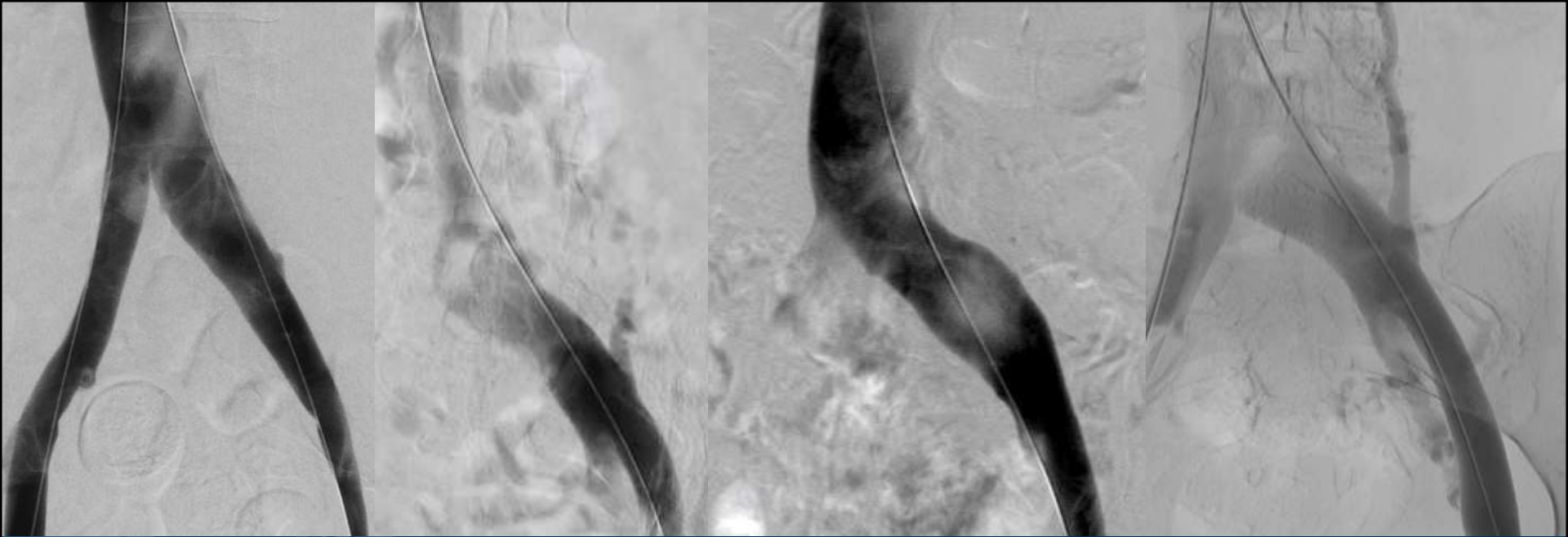
Cockett FB, Thomas ML. Am J M Sc 1908;135:342-6

May Thurner syndrome

THE CAUSE OF THE PREDOMINANTLY SINISTRAL OCCURRENCE OF THROMBOSIS OF THE PELVIC VEINS¹

R. MAY, M.D., AND J. THURNER, M.D.





Signs on venography:

- Contrast translucency
- Contrast irregularities
- Lumen broadening / “pancaking”
- Axial, transpelvic or ascending collaterals (often absent)

Diagnostic sensitivity of IVUS >90%

Case 1

22 year-old woman, recurrent swelling and pain in both legs (onset 3-4 years ago).

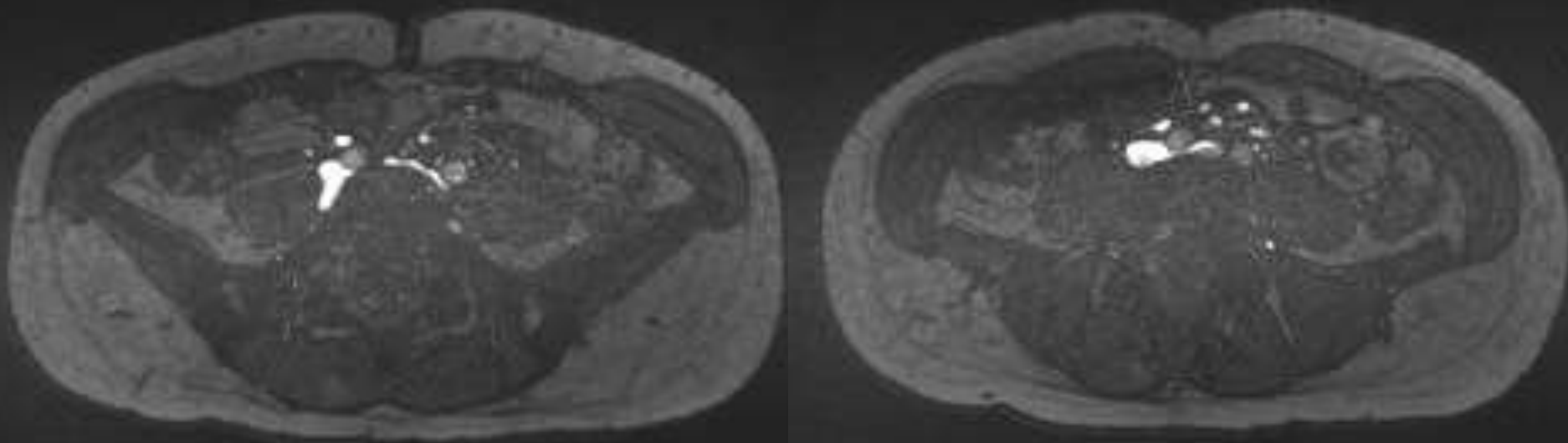
Complaints especially occurred in standing or sitting position.

No history of VTE.

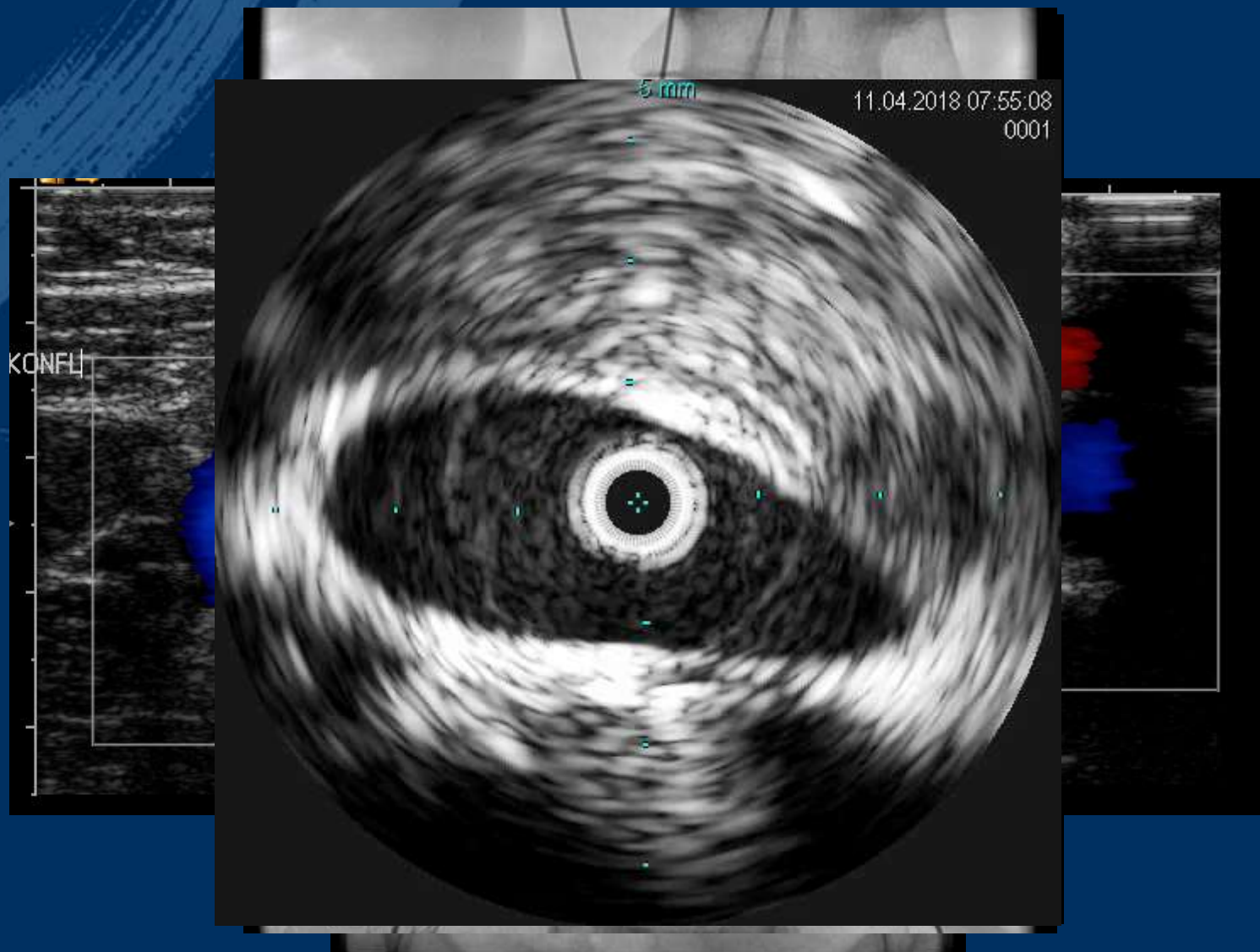
No venous claudication, CEAP C3, Villalta 7.

Case 1

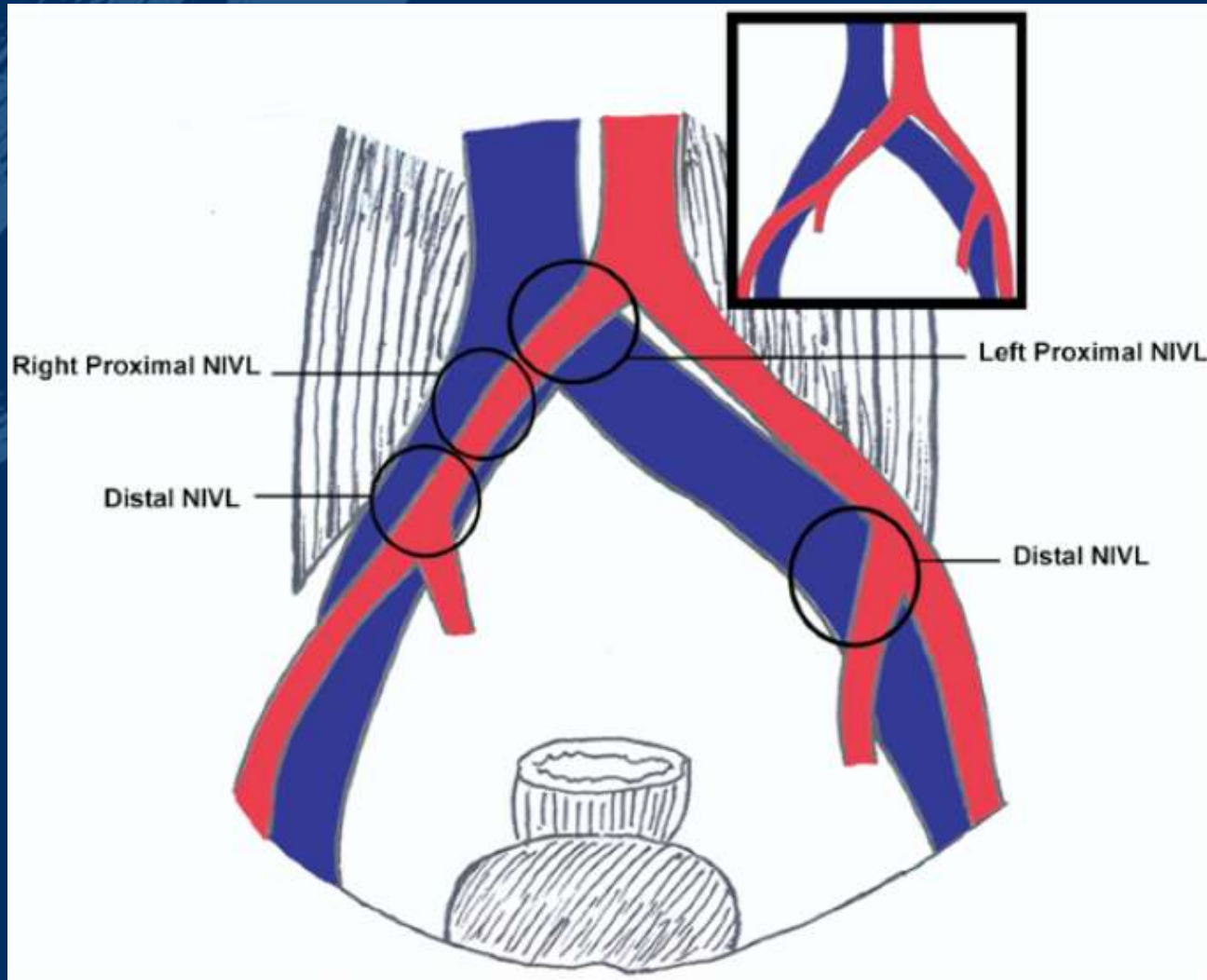
MR venography



Case 1



NIVL - anatomy



Case 2

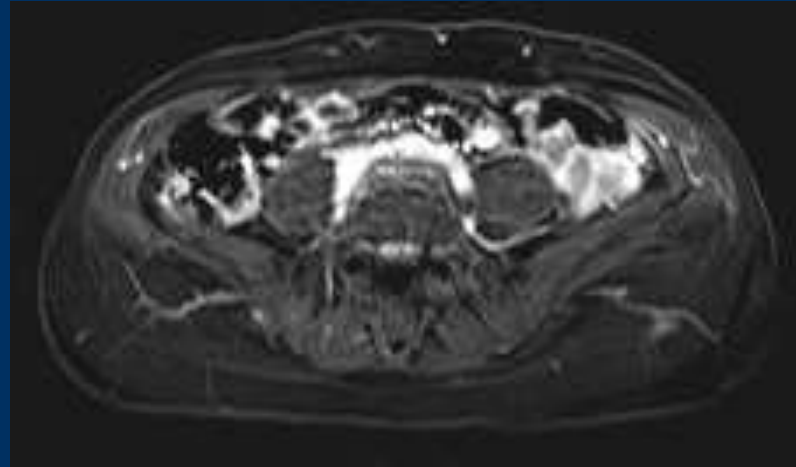
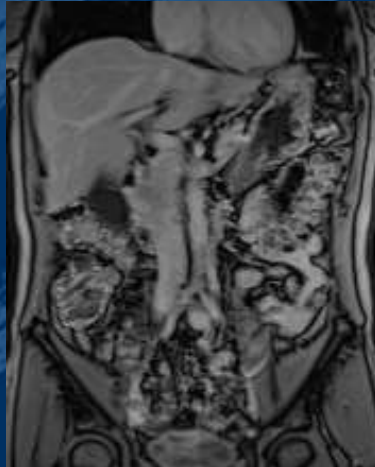
45 year-old woman, swelling and pain especially in her left leg, started years ago.

History of VTE not clear.

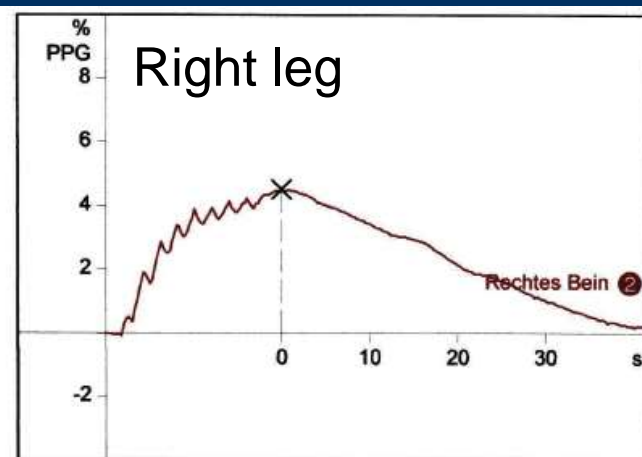
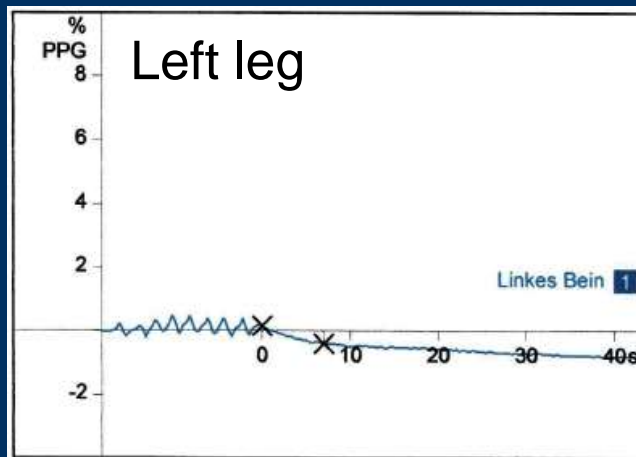
Lifestyle limiting venous claudication, CEAP C4, Villalta 11.

Case 2

MR venography



Plethysmography

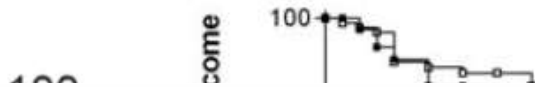


Case 2



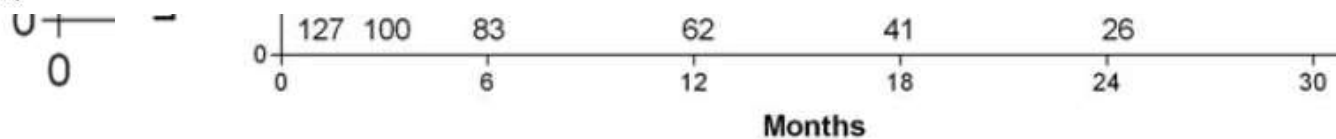
Outcome data

Meta-Analysis 37 382 NIV/technical success 94.96% periprocedural mortality 0.1-0.7%



Study	Stent	N (total)	N (NIVL/MTS)	Follow Up	Primary Patency (total)	Primary Patency (NIVL/MTS)
O'Sullivan G et al. presented @ LINC 2017	Zilver Vena	35	n/a	12 months	88%	n/a
De Wolf MAF et al. Eur J Vasc Endovasc Surg 2015	Sinus Venous	75	35	12 months	92%	100%
Stuck AK et al. J Endovasc Ther 2017	Sinus Obliquus	24	4	10 months	83%	n/a
Stuck AK et al. Vasa 2018	Sinus Obliquus	93	29	12 months	79%	89%
Razavi M. et al. J Vasc Surg Venous Lymphat Disord 2018	Vici Venous	30	11	12 months	93%	n/a
Black S et al. Eur J Vasc Endovasc Surg 2018	Vici Venous	88	n/a	21 months	78%*	n/a
Lichtenberg M et al. Vasa 2018	Venovo	80	30	6 months	96%	97%
Lichtenberg M et al. Vasa 2018	Vici Venous	82	40	12 months	94%	100%
Lichtenberg M et al. Vasa 2018	Sinus Obliquus	48	26	12 months	94%	100%

*assisted primary patency



Razavi MK et al. Circ Cardiovasc Interv 2015

Raju S et al. J Vasc Surg 2006;44:136-44

Summary

MTS is a common “permissive” condition

Clinicians should be aware of the MTS (NIVL or thrombotic)

Diagnosis: multiplane venography combined with IVUS

Stenting of MTS is durable (with/without reflux)

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