

LINC

Outcomes of endovascular treatment of PCS



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Disclosure

Speaker name: **HARTUNG Olivier**

I do not have any potential conflict of interest

Pelvic congestion syndrome

- ❑ Disabling and underestimated pathology
- ❑ Embolization : gold standard treatment

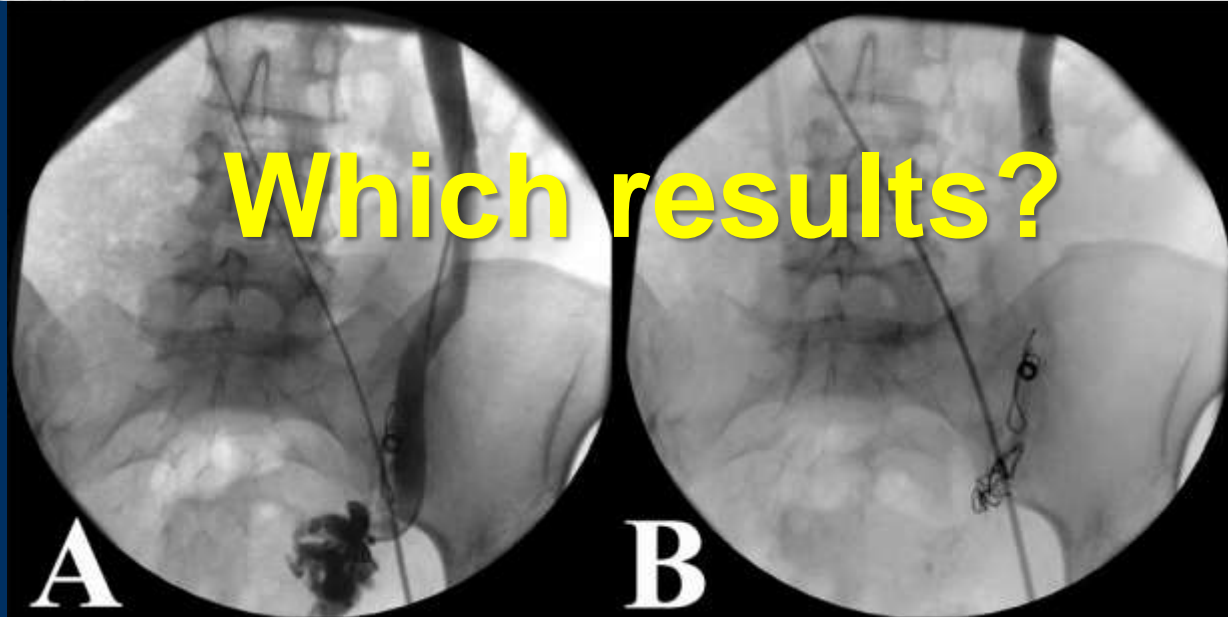
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We suggest treatment of pelvic congestion syndrome and pelvic varices with coil embolization, plugs, or transcatheter sclerotherapy, used alone or together.

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SVS:AVF guideline 2011

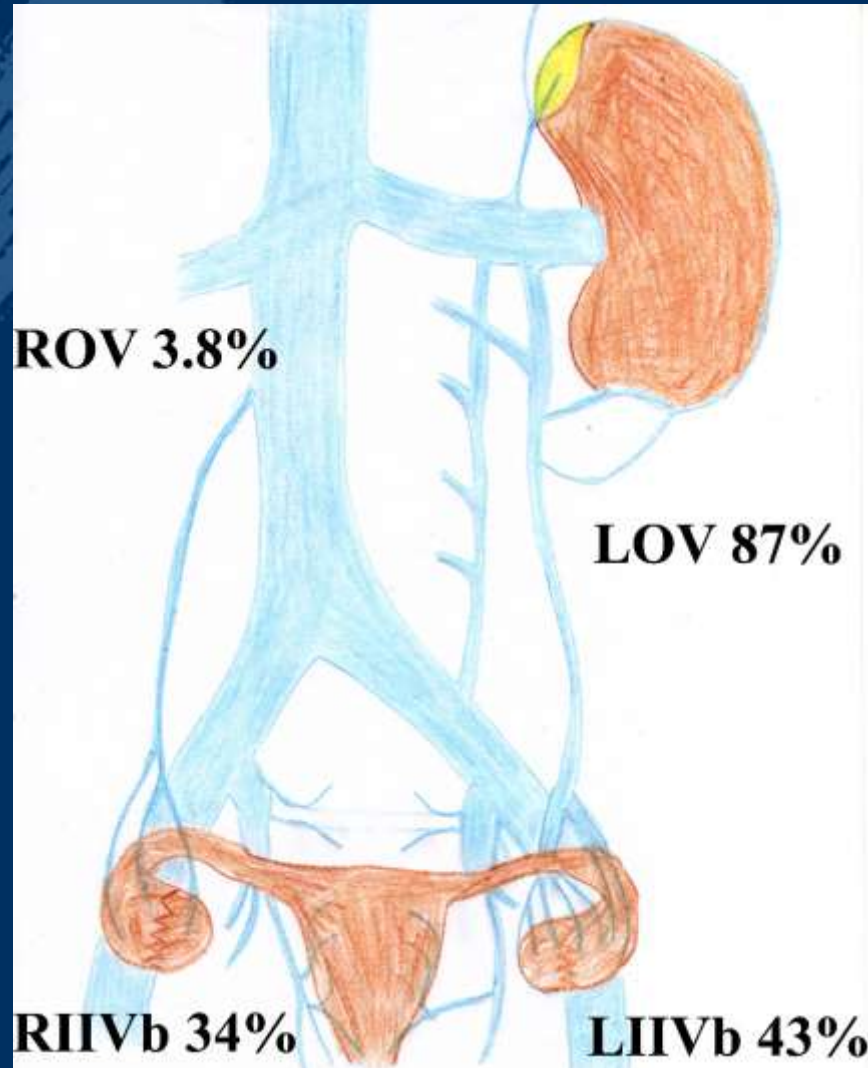


Which PCS?

- 3 mechanisms (Greiner Vascular 2007)
 - Type 1 : Venous wall pathology with reflux
 - Type 2 : Obstructive lesions (MTS, NCS, postDVT)
 - Type 3 : Local cause (endométriosis, tumor...)

Series	N	Veins	Technique	FU	Results (%)	
					Improved	Worsened
Capasso	19	OV	Cyanoacrylate and/or coils	15.4M	74%	
Tarazov	6	OV	Coils	24M	100%	
Machan	23	OV	Coils	15M	78%	
Cordts	9	OV	Coils + gelatin	13.4M	100%	
Cotroneo	22	OV	Coils	3M	60%	
Richardson	28	OV	Coils + foam	22.2M	SS	
Maleux	41	OV	Cyanoacrylate + coils	19.9M	68.2%	
Bachar	6	OV	Coils	7.7M	83%	
Pieri	33	OV	3% STS	9M	61%	
Chung	52	OV	Coils	26.6M	SS	
van der Vleuten	21	OV	Coils	18M	62%	
Kim	127	OV	Gelfoam + SM + coils	45M	83%	4
Tropeano	22	OV	Foam	15M	90%	
d'Archembeau	48	OV	Coils	43M	73%	
Gandini	38	OV	3% STS foam	12M	100%	0
Kwon	67	OV	Coils	40M	82%	
Scultetus	7	OV	Coils	27M	43%	
	6	IIVT	Coils		83%	
	12	IIVT + OVR	Coils + OVR	83.4%		
Creton	24	OV +/- IIVT	Coils	36M	76%	
Laborda	202	OV +/- IIVT	Coils	60M	93%	
Nasser	113	OV +/- IIVT	Coils	12M	100%	0
Lasry	30	OV +/- IIVT	Coils	6M	90%	
Hocquet	33	OV +/- IIVT	Coils + foam	23M	93%	0
Asciutto	35	OV and/or IIVT	Coils	45M	Embol >	
Monedero	215	OV and/or IIVT	Coils + foam	6M	90%	
Venbrux	56	OV and/or IIVT	Coils + foam	22M	SI	
Ratnam	218	OV and/or IIVT	Coils	0.9M	95%	NS
Hartung	78	OV and/or IIVT	Coils + foam	4M	91%	0

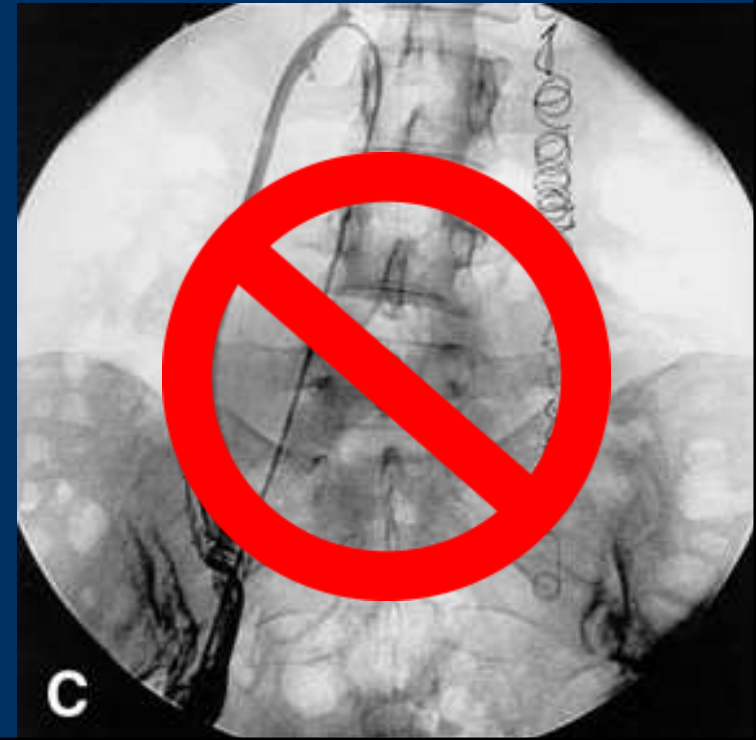
Which veins?



Which technique?

□ Leal Monedero : 1186 embolizations

- coils + foam : 95.6% improvement vs coils 76% at 6 months and less coils



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- coils + foam : 95.6% improvement vs coils 76% at 6 months and less coils

❑ Glue : different philosophy

- Occlude all varicose veins instead of suppressing reflux
- Drawbacks :
 - ✓ Longer procedure
 - ✓ Onyx needs general anesthesia (pain+++)
 - ✓ Can limit future imaging explorations

Complications

□ Sparse

- Perforation => no foam
- Postoperative pain 10%
- Puncture site hematoma
- DVT/PE
- Coils/glue embolization



Results

(Hartung Phlebologie 2015)

□ Pelvic vein reflux

- PCS improved in 55 (91%), 36 (60%) asymptomatic
- Varicose veins improvement 31 patients (51%)
 - ✓ Decrease of symptoms or of the volume and extent of the varicose veins.
 - ✓ Additional treatment needed in 50 patients (82%)
 - ✓ Planned surgical treatment changed for foam in 8 cases.

Conclusion

- ❑ PVI can cause PCS but also lower limb VV
- ❑ Mostly due to isolated pelvic reflux
 - To be treated **before LLVV**
 - Embolization : safe and efficient
 - Treat **all incompetent veins**
- ❑ Obstruction must be recognized and treated if indicated

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