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Ovarian Vein Embolization Which Patients Benefit?

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Disclosures

Mark H. Meissner, MD
I Have No Disclosures

Embolization for VO-CPP

Hanrani V. BJOG 2023

- 60 women with unexplained chronic pelvic pain & pelvic reflux randomized
 - Tranjugular venography
 - Venography + coil embolization (Extent of embolization at proceduralist discretion)

Domain	Time from randomisation	Control	Adjusted predictions (95% CI)
Mean McGill Pain Questionnaire (SF-MPQ) Pain Rating Index (Maximum 45)	0 days	15	15
	1 week	14	14
	3 months	13	13
	6 months	12	12
	12 months	11	11

The Extent of Embolization DOES Matter

Monedero JL, Phlebology 2012

Article, Journal, Year	Patients (No.)	Embolization	Medical	Follow-up in months (range)	Clinical outcome
Cappucco et al., Cardiovasc Intervent Radiol 1997	19	13 unilateral ovarian & 6 bilateral ovarian	Coil and stent therapy	15.4	58.9% total relief
Monedero et al., J Vasc Med Biol 2002	41	30 unilateral ovarian & 11 bilateral ovarian	Coil therapy	19.9 (1-29)	and relief 59% total relief 58.2%
Monedero et al., J Vasc Med Biol 2002	35	30 unilateral ovarian & 5 bilateral ovarian	Coil	24.7 (8-35)	and relief 59% total relief 58.2%
Han et al., J Vasc Med Biol (Berlin) 2003	33	11 unilateral ovarian & 22 bilateral ovarian	Stent and coil	8.9 (2-12)	and relief 59% total relief 58.2%
Yang et al., J Vasc Med Biol 2005	32	Unilateral	Coil	8-12	and relief 59% total relief 58.2%
Kim et al., J Vasc Med Biol 2005	127	100 bilateral ovarian vein & 95 bilateral iliac vein, 20 unilateral ovarian vein & 13 unilateral iliac vein	Sclerotherapy and coil	44 (range 1-92)	and relief 59% total relief 58.2%
Green et al., Eur J Vasc Endovasc Surg 2007	34	11 bilateral ovarian and internal iliac & 23 bilateral ovarian & 11 bilateral iliac	Coil	36	and relief 59% total relief 58.2%
Monedero et al., Eur J Vasc Endovasc Surg 2007	35	28 bilateral ovarian & 5 bilateral iliac vein & 2 ovarian and iliac vein	Coil	16.9	and relief 59% total relief 58.2%

Predominantly Unilateral Embolization
Complete / Partial Symptom Relief

Predominantly Bilateral Embolization
Complete / Partial Symptom Relief

Who May Benefit Less From Pelvic Embolization?

- Patients with other concurrent pelvic pathology
 - Endometriosis
 - Fibroids
 - Pelvic inflammatory disease
 - Myofascial pelvic pain
 - Interstitial cystitis
 - Irritable bowel syndrome
- Patients with primarily pelvic or leg symptoms
- Patients with 1° obstructive uropathy
 - Common iliac compression with 3° retrograde flow velocity
 - Renal vein compression with 2° retrograde flow velocity
- Patients with significant

Outcomes After Pelvic Venous Embolization

Nasser P, Int J Obstet Gynecol 2014

- 113 patients undergoing ovarian / IIV embolization (coils only) for VO-CPP
- Associated symptoms
 - Dysmenorrhea – 81.4%
 - Urinary symptoms – 41.6%
 - Vulvar varicosities – 45 (39.8%)
 - Leg varices – 105 (92.9%)
- Pelvic VAS pain score at 12 months – 7.34 →→→ 0.47
 - Complete clinical success – 37%
 - Incomplete clinical success – 63%

Predictors of Incomplete Clinical Success

	Odds Ratio	p
Leg Varices	5.9 (1.3 – 22.4)	.012
Urinary Symptoms	5.3 (1.4 – 20.4)	.014

Obstructive Causes of VO-CPP

Sulakvelidze L, Phlebology 2021

1280 Women Treated for Pelvic Venous Disease

Demographics ARE Important

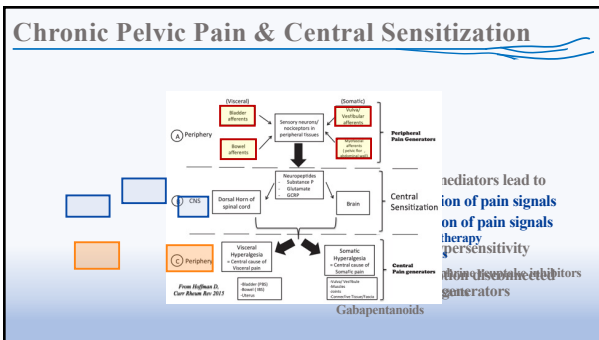
Percentage of Patients: 0.00% to 80.00%

Age Groups: 20-29, 30-39

Legend: Any Leg Symptoms (Solid Bar), OVE Alone (Dotted Line)

Annotations:

- 1° Pelvic Reflux: Young, Primiparous, Multiparous, Lower BMI
- 1° Disc Compression: Older, Post-menopausal, Nulliparous, Higher BMI



Conclusions

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Pelvic embolization is the gold standard treatment for VO-CPP secondary to pelvic venous reflux

Less benefit with [unclear] with [unclear]

- Concurrent pelvic pathology requires simultaneous evaluation in ALL patients
- Predominant leg symptoms without significant pelvic symptoms
- Concurrent obstructive pathology and demographics ARE important
- Chronic pain with central sensitization requires interdisciplinary approach required