DRAFT Medical Coverage Policy | Ovarian and Internal Iliac Vein Embolization as a Treatment of Pelvic Congestion Syndrome

EFFECTIVE DATE: 02|01|2027
POLICY LAST REVIEWED: 10|21|2026

OVERVIEW

Pelvic congestion syndrome is characterized by chronic pelvic pain that is often aggravated by standing; diagnostic criteria for this condition are not clearly defined well-defined. Endovascular occlusion (eg, embolization, sclerotherapy) of the ovarian and internal iliac veins has been proposed as a treatment for patients who fail medical therapy with analgesics.

MEDICAL CRITERIA

Not applicable

PRIOR AUTHORIZATION

Not applicable

POLICY STATEMENT

Medicare Advantage Plans and Commercial Products

Ovarian vein embolization or trans-venous occlusion using metallic coils or foam/gel sclerotherapy of pelvic vein incompetence for the treatment of pelvic congestion syndrome with varices is covered.

COVERAGE

Benefits may vary between groups and contracts. Please refer to the appropriate Benefit Book, Evidence of Coverage or Subscriber Agreement for applicable not medically necessary/not covered benefits/coverage.

BACKGROUND

Pelvic congestion syndrome is a condition of chronic pelvic pain of variable location and intensity, which is associated with dyspareunia and postcoital pain and aggravated by standing. The syndrome occurs during the reproductive years, and pain is often greater before or during menses. The underlying etiology is thought to be related to varices of the ovarian veins, leading to pelvic congestion. As there are many etiologies of chronic pelvic pain, the pelvic congestion syndrome is often a diagnosis of exclusion, with the identification of varices using a variety of imaging methods, such as magnetic resonance imaging, computed tomography scanning, or contrast venography. For those who fail medical therapy with analgesics, surgical ligation of the ovarian vein has been considered. More recently, embolization therapy of the ovarian and internal iliac veins has been proposed. Vein embolization can be performed using a variety of materials including coils, glue, and gel foam.

Recommended Medical Records

- Current Medication List
- History and Physical Report
- Office Notes
- Radiology Report
- Duplex scan
- Diagnostic venography, CT or MRI report

No randomized controlled trials (RCTs) have been published comparing embolization therapy for pelvic congestion syndrome to an alternative or sham/placebo treatment. RCTs are especially needed in situations such as this where the primary symptom is pain, a subjective outcome for which a placebo response to treatment is likely. The published studies consist of case series, most of which were retrospective and conducted outside of the United States Laborda et al in (2013) reported longer term outcomes after coil

embolization for pelvic congestion syndrome. The study included patients who were referred by a vascular surgeon. There were no clearly defined diagnostic criteria. A total of 179 (89%) of 202 women completed 5-year follow-up. Mean age at baseline was 43.5 years. Primary outcomes were pain improvement and patient satisfaction. Pain improvement was measured on a 10-point visual analog scale (VAS) with 0 defined as no pain at all and 10 defined as the worst pain imaginable. At baseline, mean VAS (SD) was 7.34 (0.7), and at 5 years mean VAS was 0.78 (1.2). The decrease in mean VAS score overtime was statistically significant ($p<0.001$). Mean patient satisfaction (SD) was 7.39 (1.5) on a 0 to 9 scale. There were 4 cases of coil migration (2%), and these were considered major complications. As with the other case series previously discussed, this study is limited by the lack a control group with which to compare outcomes.

Ovarian vein dilatation, stasis, and/or reflux on pelvic venography are common findings in multiparous premenopausal women, and most of these women are asymptomatic . Why these findings are associated with chronic pelvic pain in some women, but not in others, is unclear. A causal relationship has not been proven, but is supported by limited data showing pain relief upon administration of venoconstrictors or ovarian vein ligation/embolization

The higher prevalence of PCS in multiparous women may be related to the 50 percent increase in pelvic vein capacity during pregnancy, which may lead to venous incompetence and reflux in the non-pregnant state. The increased frequency of PCS symptoms on the left side may be due to extrinsic compression of the left renal vein between the aorta and superior mesenteric artery ("nutcracker phenomenon;" ie, pelvic congestion, left flank pain, and hematuria), or because valvular incompetence of the ovarian vein due to absent ovarian vein valves is more common on the left.

CODING

Medicare Advantage Plans and Commercial Products

The following CPT code(s) are covered when filed with the ICD-10 Diagnosis Code(s) listed below:

37241 Vascular embolization or occlusion, inclusive of all radiological supervision and interpretation, intraprocedural roadmapping, and imaging guidance necessary complete the intervention; venous, other than hemorrhage (e.g., congenital or acquired venous malformations, venous and capillary hemangiomas, varices, varicoceles)

*__ICD-10 Diagnosis Code__: N94.89

RELATED POLICIES

Not applicable

PUBLISHED

Provider Update, December 2026
Provider Update, December 2025
Provider Update, September 2024
Provider Update, December 2023
Provider Update, November 2022

REFERENCES

1. Roxenblit AM, Ricci ZJ, Tuvia J, Amis ER Jr. Incompetent and dilated ovarian veins: a common CT finding in asymptomatic parous women. AJR Am J 2001; 176:119.
2. d'Archambeau O, Maes M, De Schepper AM. The pelvic congestion syndrome: role of the "nutcracker phenomenon" and results of endovascular treatment. JBR-BTR 2004;87:1
3. Menard MT. Nutcracker syndrome: when should it be treated and how? Prespect Vasc Surg Endovasc Ther. 2009;21:117.
4. Hobbs JT, The pelvic congestion syndrome. Br J Hosp Med. 1990; 43:200.
5. Ashour MA, Soliman HE, Khougeer GA. Role of desending venography and endovenous embolization in treatment of females with lower extremity varicose veins, vulvar and posterior thigh varices. Saudi Med J 2007; 28:206

DRAFT

6. Jambon E, Le Bras Y, Coussy A, et al. Embolization in pelvic venous disorders using ethylene vinyl alcohol copolymer (Onyx®) and Aetoxysclerol: a prospective evaluation of safety and long-term efficacy. Eur Radiol. Jul 2022; 32(7): 4679-4686. PMID 35137302
7. Sozutok S, Piskin FC, Balli HT, et al. Efficacy of the endovascular ovarian vein embolization technique in pelvic venous congestion syndrome. Pol J Radiol. 2022;87:e510-e515.
8. Gavrilov SG, Sazhin AV, Akhmetzianov R, et al. Surgical and endovascular treatment of pelvic venous disorder: Results of a multicentre retrospective cohort study. J Vasc Surg Venous Lymphat Disord. Sep 2023; 11(5): 1045-1054. PMID 37150252
9. Beard RW, Highman JH, Pearce S, Reginald PW. Diagnosis of pelvic varicosities in women with chronic pelvic pain. Lancet 1984; 2:946
10. Emad El Din M, Soliman M, El Kiran Y, et al. Ovarian vein surgical ablation versus endovascular technique for treatment of pelvic vein incompetence. J Vasc Surg Venous Lymphat Disord. Jul 2023; 11(4): 801-808. PMID 37003463
11. Knuttinen MG, Machan L, Khilnani NM, et al. Diagnosis and Management of Pelvic Venous Disorders: AJR Expert Panel Narrative Review. AJR Am J Roentgenol. Nov 2023; 221(5): 565-574. PMID 37095667

DRAFT

CLICK THE ENVELOPE ICON BELOW TO SUBMIT COMMENTS

This medical policy is made available to you for informational purposes only. It is not a guarantee of payment or a substitute for your medical judgment in the treatment of your patients. Benefits and eligibility are determined by the member's subscriber agreement or member certificate and/or the employer agreement, and those documents will supersede the provisions of this medical policy. For information on member-specific benefits, call the provider call center. If you provide services to a member which are determined to not be medically necessary (or in some cases medically necessary services which are non-covered benefits), you may not charge the member for the services unless you have informed the member and they have agreed in writing in advance to continue with the treatment at their own expense. Please refer to your participation agreement(s) for the applicable provisions. This policy is current at the time of publication; however, medical practices, technology, and knowledge are constantly changing. BCBSRI reserves the right to review and revise this policy for any reason and at any time, with or without notice. Blue Cross & Blue Shield of Rhode Island is an independent licensee of the Blue Cross and Blue Shield Association.