

EVIDENCE BASED STATEMENT

DOMAIN **05**, Statement **01**

TOPIC: “**Pelvic venous reflux role in pelvic pain pathophysiology**”

SEARCH TERMS & SOURCES

(pelvic pain) AND (venous)

(INCLUSION CRITERIA

- English language
- Reviews, Meta-analysis
- Publication < 10 years, only ENG

SEARCH RESULT BEFORE - AFTER SELECTION

83/10

PERTINENT LITERATURE NOT IDENTIFIED BY THE LITERATURE SEARCH

1. Szaflarski D, Sosner E, French TD, et al.. Evaluating the frequency and severity of ovarian venous congestion on adult computed tomography. *Abdom Radiol.* 2019;44(1):259–263.
2. Gavrilov SG, Moskalenko YP, Karalkin AV. Effectiveness and safety of micronized purified flavonoid fraction for the treatment of concomitant varicose veins of the pelvis and lower extremities. *Curr Med Res Opin.* 2019 Jun;35(6):1019-1026.
3. Mahmoud O, Vikatmaa P, Aho P, et al.. Efficacy of endovascular treatment for pelvic congestion syndrome. *J Vasc Surg Venous Lymphat Disord.* 2016;4(3):355–370
4. Giancesini S, Antignani PL, Tessari L. Pelvic congestion syndrome: does one name fit all? *Phlebology* 2016;23(3).
5. Borghi C, Dell'Atti L.. Pelvic congestion syndrome: the current state of the literature. *Arch Gynecol Obstet.* 2016;293(2):291–301
6. Phillips D, Deipolyi AR, Hesketh RL, et al.. Pelvic congestion syndrome: etiology of pain, diagnosis, and clinical management. *J Vasc Interv Radiol.* 2014;25(5):725–733
7. Rane N, Leyon JJ, Littlehales T, et al.. Pelvic congestion syndrome. *Curr Probl Diagn Radiol.* 2013;42(4):135–140.
8. Rozenblit AM, Ricci ZJ, Tuvia J, Amis ES Jr. Incompetent and dilated ovarian veins: a common CT finding in asymptomatic parous women. *AJR Am J Roentgenol.* 2001 Jan;176(1):119-22.

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Domain 5; Statement 1

IDENTIFIED REFERENCES

1. Barge TF, Uberoi R. Symptomatic pelvic venous insufficiency: a review of the current controversies in pathophysiology, diagnosis, and management. *Clin Radiol*. 2022 Jun;77(6):409-417.
2. Bałabuszek K, Toborek M, Pietura R. Comprehensive overview of the venous disorder known as pelvic congestion syndrome. *Ann Med*. 2022 Dec;54(1):22-36.
3. Berthelot JM, Douane F, Ploteau S, et al. Venous congestion as a central mechanism of radiculopathies. *Joint Bone Spine*. 2022 Mar;89(2):105291.
4. Echols K, Rich J. Non-venous Pelvic Pain and Roles for Pelvic Floor PT or Pudendal Nerve Blocks. *Tech Vasc Interv Radiol*. 2021 Mar;24(1):100735.
5. Maratto S, Khilnani NM, Winokur RS. Clinical Presentation, Patient Assessment, Anatomy, Pathophysiology, and Imaging of Pelvic Venous Disease. *Semin Intervent Radiol*. 2021 Jun;38(2):233-238.
6. Szymanski J, Jakiel G, Slabuszewska-Jozwiak A. Pelvic venous insufficiency - an often-forgotten cause of chronic pelvic pain. *Ginekol Pol*. 2020;91(11):704-708.
7. Yetkin E, Ozturk S, Cuglan B, Turhan H. Symptoms in Dilating Venous Disease. *Curr Cardiol Rev*. 2020;16(3):164-172
8. Gavrilov SG, Vassilieva GY, Vasilev IM, et al. The role of vasoactive neuropeptides in the genesis of venous pelvic pain: A review. *Phlebology*. 2020 Feb;35(1):4-9.
9. Champaneria R, Shah L, Moss J, et al The relationship between pelvic vein incompetence and chronic pelvic pain in women: systematic reviews of diagnosis and treatment effectiveness. *Health Technol Assess*. 2016 Jan;20(5):1-108.
10. Phillips D, Deipolyi AR, Hesketh RL, et al. Pelvic congestion syndrome: etiology of pain, diagnosis, and clinical management. *J Vasc Interv Radiol*. 2014 May;25(5):725-33.

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TEXT FOR INCLUSION IN THE DOCUMENT

DOMAIN 05, Statement 01, TOPIC: ""

Pelvic venous reflux has been reported as possible cause of pelvic pain in up 30% of women. At the same time, venous reflux can be present in asymptomatic patients manifesting itself with a heterogeneous spectrum of signs and symptoms. The relationship between pelvic venous reflux and pain perception is complex in its pathophysiology description and still to be fully understood. Vein dilation per se is not enough to lead to both the symptoms and the diagnosis of pelvic venous disorder.

***[Bałabuszek K, Toborek M, Pietura R. Comprehensive overview of the venous disorder known as pelvic congestion syndrome. *Ann Med.* 2022 Dec;54(1):22-36].**

Incompetent and dilated ovarian veins can be found in almost 50% of asymptomatic women.

[Rozenblit AM, Ricci ZJ, Tuvia J, Amis ES Jr. Incompetent and dilated ovarian veins: a common CT finding in asymptomatic parous women. *AJR Am J Roentgenol.* 2001 Jan;176(1):119-22].

Venous hypertension and the related inflammation can be partially compensated by the perineal leaking points, downloading the pressure on the lower limb varicose veins.

[Gianesini S, Antignani PL, Tessari L. Pelvic congestion syndrome: does one name fit all? *Phlebology* 2016;23(3)].

The hormonal status can influence the symptomatology that usually resolve after menopause: a finding that indirectly could suggest the same hormones role in vein dilation. Indeed, oestrogen leads to nitric oxide secretion, resulting in increased dilatation and vein wall deterioration.

Data show that oestrogen levels can affect nociceptive sensitivity.

[Yu JH, Fang HH, Liu SY, et al.. Dual effects of a gonadotropin-releasing hormone agonist on an adolescent girl with pelvic congestion syndrome and precocious puberty: a case report. *J Int Med Res.* 2020;48(9):030006052095469]

Another indirect sign of pelvic venous reflux role on pain development can be found in preliminary data showing how a drug able to act on the venous tone demonstrated to decrease pelvic pain and blood pooling.

[Gavrilov SG, Moskalenko YP, Karalkin AV. Effectiveness and safety of micronized purified flavonoid fraction for the treatment of concomitant varicose veins of the pelvis and lower extremities. *Curr Med Res Opin.* 2019 Jun;35(6):1019-1026].

Further investigations are needed to fully understand the intricate pathophysiology connecting pelvic vein reflux and pelvic pain.

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STATEMENT FOR PUBLIC EVIDENCE-BASED AWARENESS

DOMAIN 05, Statement 01

“Pain in the lower abdomen and/or back can be caused by a pelvic venous reflux requiring proper expert assessment, including by a vascular specialist”

SELECTED REFERENCES

1. Bałabuszek K, Toborek M, Pietura R. Comprehensive overview of the venous disorder known as pelvic congestion syndrome. *Ann Med.* 2022 Dec;54(1):22-36
2. Rozenblit AM, Ricci ZJ, Tuvia J, Amis ES Jr. Incompetent and dilated ovarian veins: a common CT finding in asymptomatic parous women. *AJR Am J Roentgenol.* 2001 Jan;176(1):119-22
3. Giancesini S, Antignani PL, Tessari L. Pelvic congestion syndrome: does one name fit all? *Phlebology* 2016;23(3)
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5. Gavrilov SG, Moskalenko YP, Karalkin AV. Effectiveness and safety of micronized purified flavonoid fraction for the treatment of concomitant varicose veins of the pelvis and lower extremities. *Curr Med Res Opin.* 2019 Jun;35(6):1019-1026

identified LITERATURE BIAS

Lack of objective measurement in pelvic pain measurement

SUGGESTED NEXT LINES OF RESEARCH

Correlation between pelvic pain and pelvic vein drainage impairment