International Journal of Reproduction, Contraception, Obstetrics and Gynecology
Ghorpade N et al. Int J Reprod Contracept Obstet Gynecol. 2026 May;15(5):1816-1819
www.ijrcog.org
pISSN 2320-1770 | eISSN 2320-1789

DOI: https://dx.doi.org/10.18203/2320-1770.ijrcog20261292

Case Report

Pelvic congestion syndrome: a rarely recognized cause of chronic pelvic pain-clinical presentation and successful management: a case report

Niteen Ghorpade*, Janhavi Ramesh Sehta, Tushar Laxman Rahane, Megha Shah, Neelam Choudhary

Department of Obstetrics and Gynaecology, Inspiria Laparoscopy and IVF Research Centre, Rahata, Maharashtra, India

Received: 20 December 2025
Revised: 07 March 2026
Accepted: 09 March 2026

***Correspondence:**
Dr. Niteen Ghorpade,
E-mail: niteenghorpade9@gmail.com

ABSTRACT

Pelvic congestion syndrome (PCS) is an underdiagnosed cause of chronic pelvic pain in women of reproductive age, resulting from venous insufficiency and retrograde blood flow in the ovarian and pelvic veins. The condition typically presents with chronic dull pelvic pain, pressure, and heaviness lasting longer than six months, often exacerbated by menstruation, prolonged standing, and increased intra-abdominal pressure. Due to its nonspecific symptoms and overlap with other gynecological disorders, diagnosis is frequently delayed. Imaging modalities such as transvaginal Doppler ultrasonography, CT venography, and MR venography play a crucial role in diagnosis. We report a rare case of PCS in a multiparous woman with longstanding chronic pelvic pain who had undergone multiple evaluations elsewhere without definitive diagnosis. Timely recognition and appropriate management at our center resulted in significant symptomatic improvement. This case highlights the importance of considering PCS in the differential diagnosis of chronic pelvic pain.

Keywords: Pelvic congestion syndrome, Ovarian vein, Congestive pain, Hormonal, Surgical treatment

INTRODUCTION

Retrograde blood flow through incompetent valves can often create tortuous, congested ovarian or pelvic veins. Chronic pelvic ache, pressure, and heaviness may result and is termed PCS.[1]

PCS is characterized by chronic, dull pelvic pain, pressure, and heaviness that persists for more than 6 months with no other cause.

Symptoms are exacerbated with menstruation, prolonged standing and activities that increase the abdominal pressure and are felt more during the daytime.[3,4]

Women with a history of multiple pregnancies are more often affected by PCS, mainly between 20 and 53 years of age.[5]

Risk factors for PCS include a high number of pregnancies, structural abnormalities in the pelvic vein, family history of pelvic pain, patient hormonal imbalance such as elevated estrogen levels, conditions like polycystic ovary syndrome, estrogen therapy, varicose veins in the legs, phlebitis, uterine prolapse, prior pelvic surgery, and activities that involve heavy weight lifting or prolonged and frequent standing without relief by walking.[6]

Common treatments for PCS are hormonal suppression, ovarian vein embolization, or hysterectomy with BSO.

PCS is an underdiagnosed yet significant cause of chronic pelvic pain in women of reproductive age. The condition is frequently overlooked due to its nonspecific presentation and overlap with common gynecological disorders such as endometriosis, pelvic inflammatory disease, adenomyosis, and uterine fibroids.

The prevalence of PCS among women presenting with chronic pelvic pain is estimated to be nearly 20-30%.

Here, we present a rare case of PCS in a multiparous woman with chronic pelvic pain who had undergone multiple evaluations elsewhere without diagnosis and was successfully treated at our center.

CASE REPORT

A 33-year-old multiparous with previous vaginal normal delivery woman presented to our centre with severe chronic lower abdominal pain associated with intermittent seizure-like episodes for the past three months. She had sought care at multiple hospitals and had been repeatedly managed conservatively, yet no definitive diagnosis had been established, and her symptoms progressively worsened.

Her previous menstrual cycle was regular with moderate pain with average bleeding. The pain was non-cyclical, dull, dragging in nature, aggravated by physical activity and toward the end of the day, significantly impairing her daily functioning. She had no history of pelvic inflammatory disease, genital tuberculosis, prior pelvic surgeries, or chronic systemic illness. There were no vulvar or lower limb varicosities.

Clinical examination

On arrival, her vitals were stable. Per abdomen revealed a soft but tender lower abdomen, suggestive of deep pelvic pathology. Per speculum examination showed no abnormal cervical or vaginal findings.

Ultrasound findings

Trans abdominal and transvaginal ultrasound demonstrated a normal sized uterus with 10 mm endometrial thickness with multiple dilated, tortuous pelvic venous channels, particularly around uterine wall.

A provisional differential diagnosis of: PCS and uterine arteriovenous malformation was considered.

CT findings

Contrast-enhanced CT pelvis showed dilatation of the left ovarian vein, Extensive tortuous pelvic veins, consistent with venous congestion, Minimal free fluid in the pouch of Douglas and no evidence of nutcracker phenomenon or retroaortic renal vein. Based on imaging and symptomatology, she was diagnosed with PCS, a frequently unrecognized but important cause of chronic pelvic pain.

Surgical management

Given the severity of symptoms, failure of prior conservative therapies, and her desire for definitive relief, surgical management was planned. While treatment options include hormonal suppression, endovascular embolization, and laparoscopic venous ligation, this patient was selected for laparoscopic ovarian vein clipping at its origin combined with bilateral uterine artery ligation to provide a comprehensive and durable solution with minimal procedural morbidity.

She underwent surgery under general anesthesia. A four-port laparoscopic entry was created.

Intraoperative findings were suggestive of extensive dilatation of pelvic venous plexuses, significantly distended right ovarian vein with multiple engorged, congested venous channels across the pelvis.

Procedure performed was laparoscopic left ovarian vein clipping, effectively interrupting the major reflux pathway with bilateral uterine artery ligation, reducing pelvic hyperperfusion and venous overload.

Hemostasis was secured, and the surgery was completed smoothly without complications. Standard postoperative analgesics and antibiotics were administered.

Postoperative course

Recovery was rapid and uneventful. The patient was mobilized on postoperative day 1, tolerated oral feeds well and had clean, dry dressings.

She was discharged on post operative day 2 in stable condition.

At her one-week follow-up visit, she reported remarkable improvement, with complete resolution of her chronic pelvic pain, something she had not achieved despite months of prior medical management.

Figure 1: Dilated pelvic vessels.

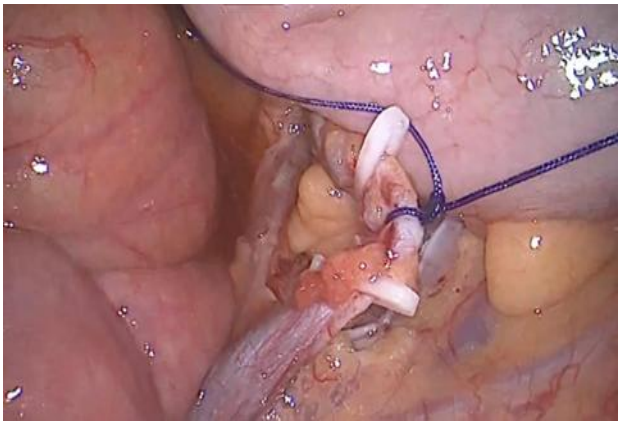

Figure 2: Left ovarian vessel clipping.

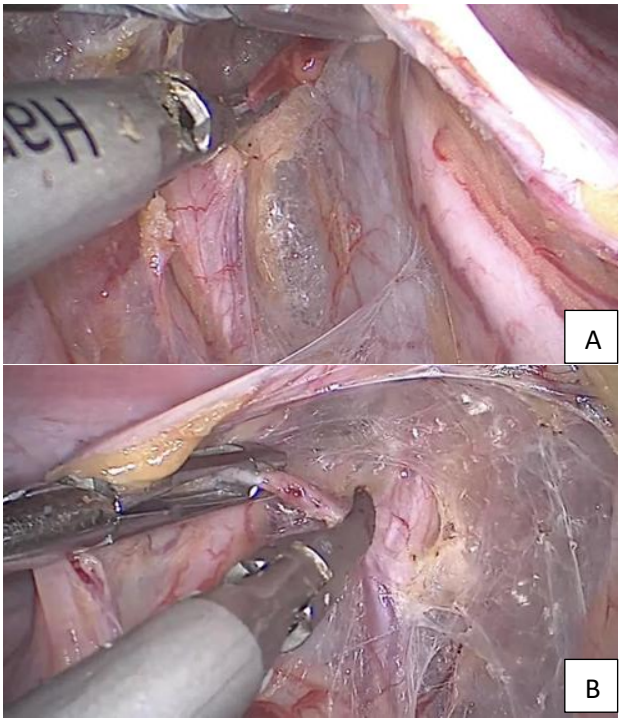

Figure 3 (A and B): Bilateral uterine arteries ligation.

DISCUSSION

PCS is a recognized yet frequently underdiagnosed cause of chronic pelvic pain in women of reproductive age. It results from venous valvular incompetence leading to reflux, dilatation, and congestion of the ovarian and pelvic veins. Despite being described several decades ago, PCS remains under-recognized due to its nonspecific clinical presentation and overlap with other gynecological conditions such as endometriosis, adenomyosis, and pelvic inflammatory disease. Studies suggest that PCS may account for a significant proportion of chronic pelvic pain cases in women, emphasizing the importance of considering this diagnosis in appropriate clinical settings.[3]

Multiparity has been identified as one of the most important risk factors for PCS. Pregnancy-related hormonal and hemodynamic changes lead to venous dilatation and reduced vascular tone, which may predispose to venous insufficiency in the ovarian veins. Previous studies have reported that PCS commonly affects multiparous women between 20 and 50 years of age.[5] In the present case, the patient was a 33-year-old multiparous woman, which is consistent with the demographic profile described in earlier studies.

The typical clinical presentation of PCS includes chronic, non-cyclical pelvic pain described as dull, aching, or dragging in nature. The pain is often aggravated by prolonged standing, physical exertion, and towards the end of the day due to increased venous pooling in the pelvis. These characteristic symptoms were also observed in our patient. Beard et al. described similar clinical features in women with pelvic venous congestion, highlighting chronic lower abdominal pain as a prominent symptom.[1]

Imaging plays a crucial role in establishing the diagnosis of PCS. Transvaginal Doppler ultrasonography is often the first-line imaging modality, demonstrating dilated and tortuous pelvic veins with slow venous flow. Cross-sectional imaging such as CT or MR venography provides additional anatomical detail and helps confirm diagnosis while excluding other potential causes. Desimpelaere et al demonstrated that CT imaging can effectively identify dilated ovarian veins and pelvic varicosities, supporting its role in the diagnosis of PCS.[2] In our case, contrast-enhanced CT revealed dilatation of the left ovarian vein along with extensive tortuous pelvic venous channels, findings consistent with venous congestion.

Management of PCS depends on the severity of symptoms and available treatment modalities. Medical therapy using hormonal suppression may provide temporary symptomatic relief but is often associated with recurrence after discontinuation. Endovascular embolization of the ovarian veins has emerged as a minimally invasive treatment option with favorable outcomes.[6] However, surgical approaches such as laparoscopic ovarian vein ligation or clipping also provide definitive treatment by eliminating the refluxing venous pathway.

In the present case, laparoscopic left ovarian vein clipping combined with bilateral uterine artery ligation was performed due to the severity of symptoms and failure of prior conservative management. This approach aimed to reduce venous reflux and pelvic hyperperfusion, thereby providing long-term symptomatic relief. The patient experienced rapid postoperative recovery and complete resolution of symptoms during follow-up, demonstrating the effectiveness of this surgical strategy.

This case highlights the importance of maintaining a high index of suspicion for PCS in women presenting with chronic pelvic pain, particularly in multiparous patients with characteristic symptoms and inconclusive previous evaluations. Early recognition and appropriate

intervention can significantly improve patient outcomes and quality of life.

CONCLUSION

PCS should be considered in women with chronic, non-cyclical pelvic pain unresponsive to standard treatment. Laparoscopic ovarian vein clipping with bilateral uterine artery ligation offers a safe, minimally invasive, and effective option, providing durable symptom relief in carefully selected patients.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Beard RW, Reginald PW, Wadsworth J. Clinical features of women with chronic lower abdominal pain and pelvic congestion. BJOG. 1988;95(2):153.
2. Desimpelaere JH, Seynaeve PC, Hagers YM, Appel BJ, Mortelmans LL. Pelvic congestion syndrome: demonstration and diagnosis by helical CT. Abdom Imaging. 1999;24(1):100-2.
3. Kuligowska E, Deeds L, Lu K. Pelvic pain: overlooked and underdiagnosed gynecologic conditions. Radio Graphics. 2005;25(1):3-20.
4. Beard RW, Reginald PW, Wadsworth J. Clinical features of women with chronic lower abdominal pain and pelvic congestion. Br J Obstet Gynaecol. 1988;95(2):153-61.
5. Potla N, Veluri SC, Stead TS, Dubey J, Ganti L. Pelvic congestion syndrome in a postmenopausal female. Cureus. 2021;13(8):e17444.
6. Phillips D, Deipolyi AR, Hesketh RL, Midia M, Oklu R. Pelvic congestion syndrome: etiology of pain, diagnosis, and clinical management. J Vasc Interv Radiol. 2014,25(5):725-33.

Cite this article as: Ghorpade N, Sehta JR, Rahane TL, Shah M, Choudhary N. Pelvic congestion syndrome: a rarely recognized cause of chronic pelvic pain-clinical presentation and successful management: a case report. Int J Reprod Contracept Obstet Gynecol 2026;15:1816-9.