

Pelvic congestion syndrome: a still underdiagnosed cause of chronic pain in premenopausal women

Krzysztof Pyra¹, Monika Zbroja², Weronika Cyranka²,
Maryla Kuczyńska¹, Michał Sojka¹, Tomasz Jargiełło¹

¹ Department of Interventional Radiology and Neuroradiology, Medical University of Lublin, Lublin, Poland

² Students' Scientific Society at the Department of Interventional Radiology and Neuroradiology, Medical University of Lublin, Lublin, Poland

The prevalence of chronic pelvic pain ranges between approximately 4% to 16% in women.¹ It can be provoked by numerous conditions, eg, gynecological, urological, gastrological, surgical, neurological, and even psychiatric ones.²⁻⁴ Therefore, the diagnosis of the underlying cause of pelvic pain is truly challenging. In a significant number of cases, chronic pain is the clinical manifestation of pelvic congestion syndrome (PCS), which is a relatively new condition in which varicose veins in the pelvic region, especially those around the uterus and adnexa, compress the surrounding structures (ie, bladder, bowels, vagina, and pelvic floor), ultimately resulting in chronic pain. Pelvic varices occur as a result of ovarian and/or iliac venous incompetence and, due to anatomical reasons, are much more common on the left side. Pelvic congestion syndrome affects mainly women of premenopausal or childbearing age.⁵ The condition is relatively unknown and particularly poorly understood by most clinicians.

We present a case of a 43-year old woman with painful swelling in the pubic region that had persisted for several years. The patient reported everyday pain, more pronounced in the evening hours and during intercourse. Other symptoms, periodically experienced by the patient in the preceding 18 months, included headaches, nausea/emesis, sensation of heavy legs, frequent urination, and recurrent constipation. Because of the presented symptoms, the patient was referred by a general practitioner for gynecological evaluation, but its results were unremarkable.

During the following 12 months, the patient had urological, gastrological, neurological, and psychological consultations and was referred for

comprehensive diagnostic workup, including abdominal ultrasonography, computed tomography of the head, magnetic resonance imaging (MRI) of the lumbar spine, and colonoscopy. All findings were inconclusive in terms of a possible source of pain. At last, due to persistent symptoms, pelvic MRI was performed, which revealed significantly dilated parametrial venous plexuses (FIGURE 1A and 1B) and was unremarkable for other significant abnormalities. Given the clinical presentation, MRI findings were indicative of PCS. The diagnosis was further confirmed by ultrasonography with Doppler imaging and Valsalva maneuver (FIGURE 1C and 1D).

Due to the complex nature of pelvic vein incompetence, the patient required a 3-stage endovascular treatment (FIGURE 1E–1G), which resulted in the successful embolization of the pathological vessels confirmed by follow-up MRI (FIGURE 1H). Pain severity decreased from 10 to 4 according to the visual analog scale, which was the immediate effect of embolization. Subsequent resolution of the dilated venous plexus led to progressive decompression of the lower pelvic organs (bladder and rectum), which eliminated previously reported urinary urgency and constipation. Shrinking of the venous collaterals within pubic and upper thigh regions due to better hemodynamics resulted in reduced swelling and less severe sensation of heavy legs.

Pelvic congestion syndrome is an underdiagnosed cause of pelvic pain in young, premenopausal, usually multiparous women.⁵ The presented case clearly demonstrates that a low awareness of PCS among clinicians results in the frequent misdiagnosis of the condition, despite extensive imaging use. Endovascular embolization is a safe and effective procedure. It is the best option for

Correspondence to:
Maryla Kuczyńska, MD,
Department of Interventional
Radiology and Neuroradiology,
Medical University of Lublin,
ul. Jaczewskiego 8, 20-954 Lublin,
Poland, phone: +48 81 72 44 154,
email: maryla.kuczyńska@gmail.com
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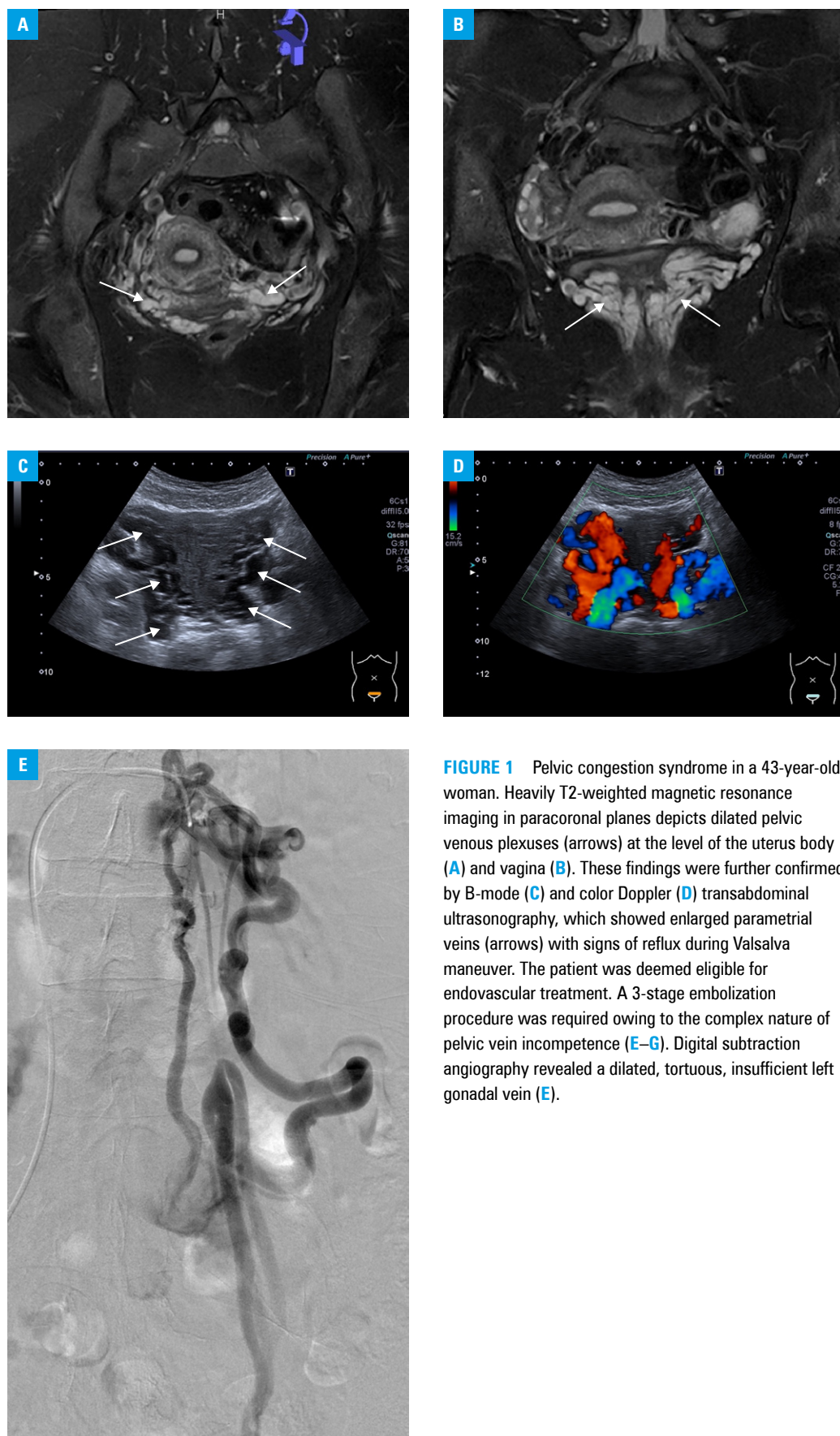


FIGURE 1 Pelvic congestion syndrome in a 43-year-old woman. Heavily T2-weighted magnetic resonance imaging in paracoronar planes depicts dilated pelvic venous plexuses (arrows) at the level of the uterus body (**A**) and vagina (**B**). These findings were further confirmed by B-mode (**C**) and color Doppler (**D**) transabdominal ultrasonography, which showed enlarged parametrial veins (arrows) with signs of reflux during Valsalva maneuver. The patient was deemed eligible for endovascular treatment. A 3-stage embolization procedure was required owing to the complex nature of pelvic vein incompetence (**E–G**). Digital subtraction angiography revealed a dilated, tortuous, insufficient left gonadal vein (**E**).

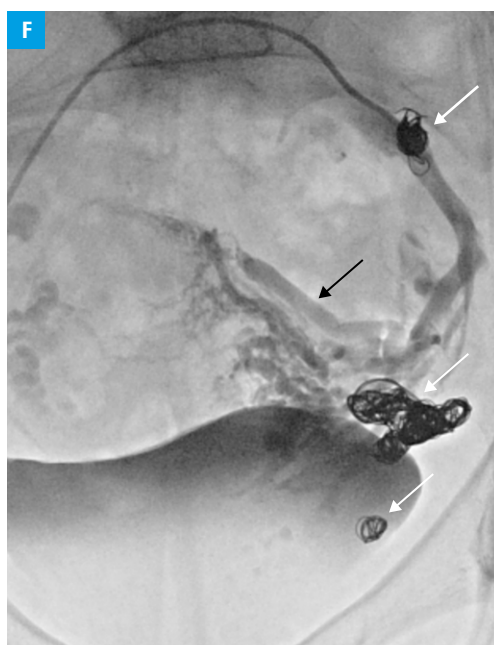
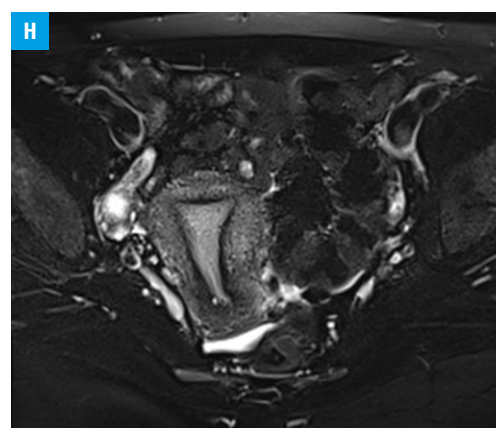


FIGURE 1 Subsequent digital subtraction angiography performed via the left (**F**) and right (**G**) internal iliac veins demonstrated contrast reflux and stasis within the enlarged vessels in the region of the uterus and vagina (black arrows). The pathological vascular bed was embolized with the Aethoxysklerol (3%) foam and embolization coils (**F**; white arrows) visible within the left ovarian vein and parametrial branches. Follow-up magnetic resonance imaging (**H**) performed at 3 months revealed no varicose veins in the parametrial or perivaginal regions, which confirmed successful endovascular embolization.



patients with PCS, as, apart from relieving pain, it improves patients' quality of life and functioning. However, in some cases, repeated embolizations are required owing to progressive insufficiency of venous collaterals, which leads to symptom recurrence.

ARTICLE INFORMATION

CONFLICT OF INTEREST None declared.

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