

## Pelvic congestion syndrome — an enigmatic pathology and diagnostic challenge for doctors

Anna Stepniak<sup>1</sup> , Andrzej Wrobel<sup>2</sup> , Tomasz Paszkowski<sup>1</sup> , Piotr Czuczwar<sup>1</sup> 

<sup>1</sup>3<sup>rd</sup> Chair and Department of Gynecology, Medical University in Lublin, Poland

<sup>2</sup>2<sup>nd</sup> Chair and Department of Gynecology, Medical University of Lublin, Poland

**Key words:** pelvic pain; pelvic congestion syndrome; pcs

Ginekologia Polska 2021; 92, 4: 331–332

A 38-year-old patient, three vaginal deliveries in history, no previous surgeries or chronic diseases, was admitted to the Gynecological Department due to severe lower abdominal pain. The patient noticed chronic pain, located mainly in the lower left abdomen. The pain was non-cyclic, not connected with menses. It worsened in upright position and improved by recumbency. There were several episodes of severe exacerbation — mainly in the evening, which forced the patient to lie down and interfered with her daily activities. For two years the patient was seeking help from numerous specialists, starting from her general practitioner, having multiple consultations by surgeons, gastrologists and gynecologists and finishing on psychotherapy. During that time, a wide range of imaging examinations and laboratory tests were conducted. The results of full blood count, C-reactive protein, and other biochemical tests were within normal values. Transvaginal and transabdominal ultrasound examination presented no abnormalities and CT scan of abdominal and pelvic cavity was normal. During gynecological examination tenderness of the adnexa was noted, otherwise the examination was normal. The patient was offered different therapies — antibiotics, spasmolytics, painkillers, oral contraceptives, diagnostic laparoscopy (which did not reveal any pathology) and finally psychotherapy and antidepressants. For two years, without a final diagnosis and targeted treatment, the symptoms were getting worse, which affected the personal life of the patient.

Eventually, the patient presented to the gynecological emergency room in our hospital with another exacerbation episode. In transvaginal ultrasound both ovaries appeared normal, the uterus appeared normal, except for the presence of dilated arcuate veins in the myometrium (Fig. 1A). Dilated left parametrial plexus (Fig. 1B) and ovarian vein (Fig. 1C) was noticed with abnormal, very slow, reversed flow. When this area was compressed with the probe, the patient reported exactly the pain she has been suffering from. Finally, the underlying cause was identified, and the recognition stated — pelvic congestion syndrome (PCS). After the diagnosis, the patient was qualified for phlebography and embolization of the left ovarian vein. The abnormal veins were closed with the use of detachable coils and aethoxysclerol. Immediately after the procedure and at three months and six months follow-up the patient did not report any pain.

PCS is a poorly understood and frequently misdiagnosed disorder of the pelvic venous circulation. It is defined as incompetence of the pelvic veins, predominantly the left ovarian vein [1]. PCS typically affects women of reproductive age, who have had at least one child. PCS is one of the most often overlooked gynecological conditions. This is a multidisciplinary pathology, which could be diagnosed by various specialists. Ultrasound markers of PCS include dilated pelvic veins > 6 mm, slow (< 3 cm/s) or reversed flow within ovarian veins, polycystic changes within the ovaries, dilated veins within the myometrium [2, 3]. The low awareness of the disease among both doctors and patients is the main issue. PCS presents a typical clinical and radiological image, which could be detected by gynecologist as well as radiologist [4]. In patients suffering from chronic pelvic pain pelvic veins should be evaluated.

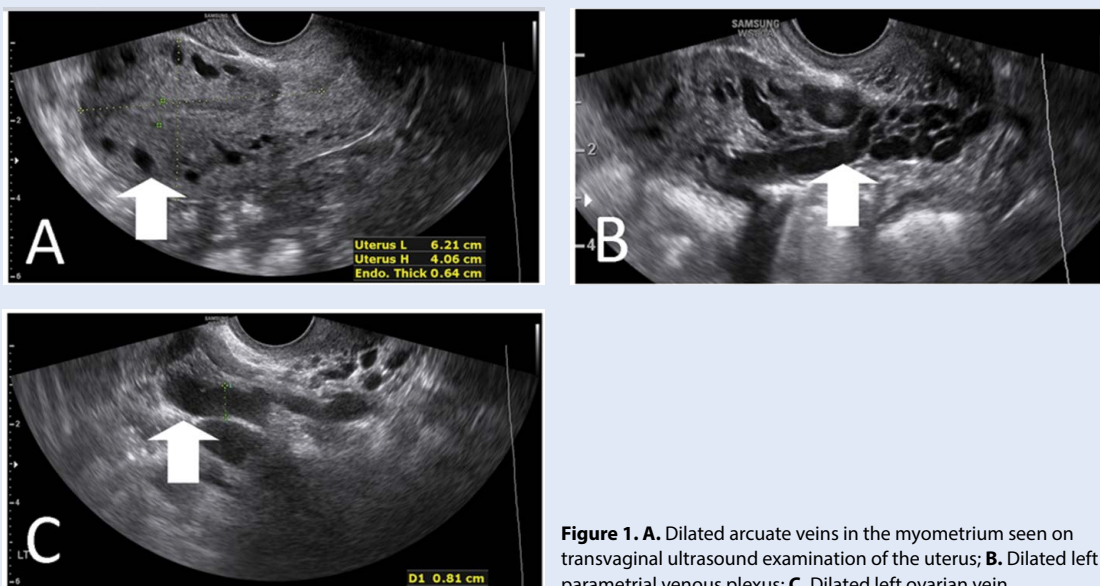
**Corresponding author:**

Anna Stepniak

3<sup>rd</sup> Chair and Department of Gynecology, Medical University in Lublin, 8 Jaczewskiego Street, 20–954 Lublin, Poland

e-mail: aanna.stepniak@gmail.com

This article is available in open access under Creative Commons Attribution-Non-Commercial-No Derivatives 4.0 International (CC BY-NC-ND 4.0) license, allowing to download articles and share them with others as long as they credit the authors and the publisher, but without permission to change them in any way or use them commercially.



**Figure 1.** A. Dilated arcuate veins in the myometrium seen on transvaginal ultrasound examination of the uterus; B. Dilated left parametrial venous plexus; C. Dilated left ovarian vein

#### Conflicts of interest

The authors declare no conflict of interest.

#### REFERENCES

1. Rane N, Leyon JJ, Littlehales T, et al. Pelvic congestion syndrome. *Curr Probl Diagn Radiol.* 2013; 42(4): 135–140, doi: [10.1067/j.cpradiol.2012.11.002](https://doi.org/10.1067/j.cpradiol.2012.11.002), indexed in Pubmed: [23795992](https://pubmed.ncbi.nlm.nih.gov/23795992/).
2. Sharma K, Bora MK, Varghese J, et al. Role of trans vaginal ultrasound and Doppler in diagnosis of pelvic congestion syndrome. *J Clin Diagn Res.* 2014; 8(7): OD05–OD07, doi: [10.7860/JCDR/2014/8106.4570](https://doi.org/10.7860/JCDR/2014/8106.4570), indexed in Pubmed: [25177607](https://pubmed.ncbi.nlm.nih.gov/25177607/).
3. Labropoulos N, Jasinski P, Adrahtas D, et al. A standardized ultrasound approach to pelvic congestion syndrome. *Phlebology.* 2016; 32(9): 608–619, doi: [10.1177/0268355516677135](https://doi.org/10.1177/0268355516677135).
4. Arnoldussen CW, de Wolf MAF, Wittens CHA. Diagnostic imaging of pelvic congestive syndrome. *Phlebology.* 2015; 30(1 Suppl): 67–72, doi: [10.1177/0268355514568063](https://doi.org/10.1177/0268355514568063), indexed in Pubmed: [25729070](https://pubmed.ncbi.nlm.nih.gov/25729070/).