

Pelvic congestion syndrome initially misdiagnosed as a hydrosalpinx — a diagnostic challenge

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Pelvic congestion syndrome (PCS) is characterized by abnormalities of ovarian, internal iliac or parametrial veins such as: dilation, varices, valvular insufficiency, obstruction or local inflammatory process. Chronic pelvic pain (CPP) is the typical symptom of PCS. PCS is one of the most frequently underdiagnosed or misdiagnosed gynecological conditions. The differential diagnosis, including gynaecological, gastrointestinal, urological and neurologic disorders, plays an important role in the adequate recognition and further treatment. We report a case of a 41-year-old patient of Caucasian racial origin, gravida 3, para 3, admitted to the hospital due to deterioration of CPP. The patient was previously diagnosed with a hydrosalpinx in the outpatient setting and was awaiting laparoscopic treatment. CPP, with a year and a half duration, was the only complaint reported. Transvaginal ultrasound examination was performed using a UGEO WS80A ultrasound system (Samsung Medison, Seoul, Korea). The uterus appeared normal except for the presence of multiple tortuous arcuate veins in the myometrium (Fig. 1), the ovaries were bilaterally unremarkable, the suspicion of hydrosalpinx was not confirmed. A dilated (up to 10.4 mm) left parametrial venous plexus, which was probably mistakenly interpreted as a hydrosalpinx, was also seen (Fig. 2). Some ultrasound features of the dilated plexus, such as an anechoic mass with incomplete septa, separated from the ovary may have led to the initial outpatient misdiagnosis of a hydrosalpinx. Slow and retrograde blood flow was noted in the dilated plexus (Fig. 3). Valsalva manoeuvre was performed during the examination to show the enhanced reversed blood flow. Basing on the ultrasound image of the pelvic veins the diagnosis of PCS was made. The patient was qualified for phlebography and embolization of the left ovarian vein using the femoral approach. During the procedure the diagnosis was confirmed by visualizing reflux in the abnormal left ovarian vein and left parametrial venous plexus. The abnormal veins were closed with the use of detachable coils and aethoxysclerol (Fig. 4). Immediately after the procedure and during 3 months follow-up the patient did not report any pain. Moreover, the ultrasound findings tended to regress, the dilated pelvic veins were not visualized at 3 months follow-up. PCS is often an overlooked condition, that can mimic other gynecological diseases, and can be effectively treated by minimally invasive techniques. Transvaginal ultrasound is the first line imaging modality to confirm the suspicion of PCS. Ultrasound diagnostic criteria for PCS are dilated pelvic or ovarian veins > 6 mm, reversed blood flow in the pelvic or ovarian veins, polycystic changes in the ovaries and dilated veins in the myometrium. The awareness of PCS is low. In our case, despite the fact that 3 out of 4 diagnostic criteria for PCS were met, the initial outpatient diagnosis was false. The diagnosis of PCS is challenging and PCS should not be omitted in the diagnostic investigation of CPP.

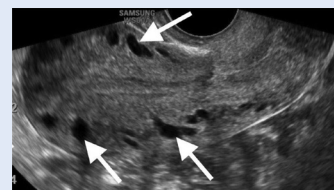


Figure 1. Transvaginal ultrasound image of the uterus. Multiple tortuous arcuate veins (arrows) were seen in the myometrium



Figure 2. Dilated left parametrial venous plexus (arrow) initially misdiagnosed as a hydrosalpinx

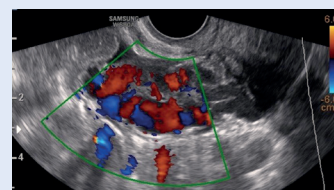


Figure 3. Color Doppler examination showed reversed blood flow in the dilated parametrial plexus



Figure 4. The abnormal ovarian vein was closed with the use of detachable coils and aethoxysclerol

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