The relation between pelvic varicose veins and lower extremity venous insufficiency in women with chronic pain


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ABSTRACT

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The authors of this study tried to determine whether there is a relationship between the presence of pelvic varicose veins and lower limb venous insufficiency in women with pelvic pain. This topic has been poorly studied and the related literature is scant. The present publication by a Turkish team reports the results of one of the rare studies performed on pelvic pain and its association with varicose veins, which is an uncommon presentation in women. The authors studied 1029 women (mean age, 40.2 years) referred for abdominal imaging. Transvaginal ultrasonography (US) was used to assess the diameter of the parauterine and paraovarian veins. Pelvic varicose veins (PVV) were defined as pelvic veins with a diameter larger than 5 mm. Patients who showed pelvic dilatation on transvaginal US were systematically evaluated by computed tomography (CT). Patients with PVV on transvaginal US and CT imaging were then examined for lower limb insufficiency with Doppler US. Of the 1029 women investigated, 56 (5.5%) had PVV on US (21) or CT (35) examination, and 973 presented with no pelvic vein dilatation. Pelvic pain was reported in 91% of women with PVV versus 8% only in those without PVV (P<0.001). The endometrial wall was significantly thicker in women with PVV compared with women with no PVVs (10mm vs 6mm, P<0.05), and the mean number of births was significantly higher (4.8±2.5 vs 2.1±1.7, P<0.001). Women with PVV were mostly multiparous (52 out of 56). More importantly, in 44 of the 56 women with PVV (78.6%), pelvic vein dilatation was associated with lower limb insufficiency (assessed on Doppler US). Despite the difference not being statistically significant, the mean number of births in this last group was higher than in those without lower limb problems (5.1±2.5 vs 3.7±2.4, P=0.08). In summary, women with PVV are likely to present with pelvic pain and concomitant lower limb insufficiency, which means that Doppler US examination of the lower limbs should be systematically performed in such patients. Multiparity could be one of the risk factors for the occurrence of PVV and its association with lower limbs insufficiency. Further studies are needed to verify these preliminary results.

However, this interesting study presents methodological flaws. For instance, the methods used to assess pelvic pain are not specified. The reasons for using CT in addition to US-exploration of pelvic veins are not clear in the publication, and neither is the selection criteria used to determine which patients should
undergo this complementary examination. Furthermore, the diagnosis of PVV based on DU and CT should have been complemented by additional venography examination. A venography of pelvic veins would have helped determine if pelvic congestion syndrome was present. With access to the superior vena cava vein, veins elbow flexure, or jugular vein, it would have been possible to study congenital compressive syndromes, Nutcracker syndrome, renal vein, iliac vein, which might have allowed the measure of selective pressures at these different levels. Subsequent embolization of both gonadal and internal iliac veins could have been considered if these veins had been found to be congested.

The authors did not clarify whether pelvic pain was related to the presence of pelvic varices or rather with that of venous insufficiency in the lower limbs.

As regards to the thickness of the endometrium, the authors did not report in which menstrual phase the patients were. It is well known that the uterus, and more particularly the endometrial wall, undergoes large variations during the menstrual cycle; however, in this study it is not known whether the changes observed in endometrial thickness were related to pelvic disease or to changes related to the menstrual cycle.

Some data in the discussion section were not described in the results, such as the prevalence of Nutcracker syndrome and details regarding the anatomy of the left renal veins in the patients studied. The absence of valves in the superior portion of the ovarian veins as a possible explanation for the occurrence of PVV, and the controversial role of estrogens in the development of PVV and pelvic congestion syndrome would have deserved a more detailed description.

References: