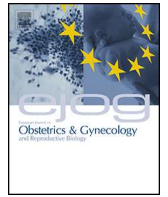




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Does pelvic congestion syndrome influence symptoms of chronic venous disease of the lower extremities?

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ABSTRACT

Objective: The study was aimed at assessing the influence of pelvic congestion syndrome (PCS) on the clinical manifestations of chronic venous disease (CVD) of the lower extremities in patients with concomitant varicose veins of the pelvis and lower extremities.

Study Design: We examined clinically and with duplex ultrasound 30 women with varicose veins of the lower extremity only (VVLE) and another 45 women with VVLE and concomitant varicose veins of the pelvis (VVP) causing symptoms of the pelvic congestion syndrome (PCS).

All patients had chronic venous disease (CVD) of class C2 (n = 47) or C3 (n = 28) according to the CEAP classification. All patients underwent duplex ultrasound (DUS) of the lower extremities and pelvis. Based on the clinical examination and DUS findings, the patients were allocated into two groups: group 1 (n = 30 patients with isolated VVLE without the signs of PCS and pelvic veins lesions) and group 2 (n = 45 patients with concomitant PCS, VVP and VVLE). The rates and severity of varicose, pain, and edema syndromes, and leg heaviness were assessed.

Results: The patients of the group 2 had significantly more severe clinical manifestations of CVD, 4 times higher risk of leg pain (odds ratio [OR] 4.23; 95% CI 1.57–11.39), 7 times higher risk of leg edema (OR 7.42; 95% CI 2.23–24.78), 5 times higher risk of leg heaviness (OR 5.3; 95% CI 1.85–15.07), and in general 2 times more severe varicose veins, compared with the group 1.

Conclusion: The PCS is associated with an increase in the incidence and severity of the CVD symptoms.

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Introduction

The perceived incidence of concomitant varicose veins of the lower extremities and varicose veins of the pelvis has been estimated at 10–70% of women [1–3]. Pelvic-perineal reflux, as a sign of pelvic phlebohypertension, develops in 10%–38% of female patients with varicose veins of the pelvis (VVP) and is accompanied by dilation of the perineal, vulvar and saphenous veins of the posterior side of the thigh [4,5]. The combination of pelvic and lower extremity varicose veins and their valvular incompetence should most probably be accompanied by a change in the severity of symptoms of chronic venous disease (CVD) of the lower extremities [6,7]. The study of Karalkin A.V. et al. [8] using radionuclide techniques has demonstrated a disturbance in the evacuation function of the muscle-venous pump in 58% of patients

with VVP. However, there is still a lack of data on the effect of pelvic vein dilation and blood reflux in them on the rates and severity of clinical manifestations of CVD.

Hence, the aim of the present study was to assess the influence of pelvic veins varicose transformation and pelvic congestion syndrome (PCS) on the clinical manifestations of CVD of the lower extremities.

Material and methods

This prospective, comparative study included 30 women with isolated varicose veins of the lower extremities (VVLE) and 45 women with concomitant varicose veins of the pelvis and lower extremities and pelvic congestion syndrome (PCS), who had been treated at the Savelyev University Surgery Clinic, Medical Faculty of the Pirogov Russian National Research Medical University in 2016–2018. The protocol of study was approved by the local ethics committee of the Pirogov Russian National Research Medical University.

Inclusion criteria were the presence of symptoms of the chronic venous disease and pelvic congestion syndrome, age 18–45 years,

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