

# PELVIC PHLEBOLITHS AS A DIAGNOSTIC CHALLENGES FOR ULTRASOUND SPECIALIST

Olga Pushkarenko, Olexandr Telehuz, Olesya Horlenko, Kaliy Vasyl, Olena Ustych, Viktor Pushkarenko  
Uzhhorod National University, Ukraine



## Objectives

Phleboliths are calcified intravenous blood clots that may result from changes in coagulation or fibrinolytic activity, from local venous damage, or a combination of these factors. They may mimic ureteric calculi, and are also encountered frequently in venous malformations. The purpose of our presentation of the clinical case is to draw attention to the possibilities of ultrasound in differential diagnosis of pelvic phleboliths.

## Methods

Ultrasound examination was performed on Canon Aplio using B-mode, Doppler, convex, linear and endocavitational probes.

## Results

A 72-year-old woman was admitted to the hospital to clarify the situation with possible stones of the distal left ureter. There were no significant complaints. History of varicose veins of the lower extremities, postthrombotic syndrome, analysis of urine without changes. Transabdominal examination by convex probe weren't visualized dilatation of the urinary collecting system, urine output into the bladder was present. Transvaginal examination showed a clear picture: both distal ureters were empty, but pelvis venous plexus on the left contains several hyperechoic round inclusions (ring-calcified lesion) with an approximate diameter of 3-5-7 mm and a clear acoustic shadow. Polypositional scanning and Doppler examination allowed us to reliably verify the presence of phleboliths.

According to the literature, such a finding is diagnosed accidentally, does not require treatment. These lumps are more common in women aged over 40 and are associated with constipation and straining, which can damage pelvic veins, diverticulosis, varicose veins, pregnancy. Histologically phleboliths are composed of small blood clots in a vein that harden over time due to formation of laminated fibrous tissue and calcification.



*Pelvic phlebolith, transvaginal*



*Pelvic phlebolith, transabdominal*



*Pelvic loose body, transvaginal*



*Stone in the ureter, transrectal*

## Conclusions

There are many cases of diagnostic errors and repeated examinations for the differential diagnosis of phleboliths and stones in the urinary tract. Transvaginal or transrectal visualization is a highly specific method for clarification and a good alternative to X-ray, MRI and CT examination.

*Correspondent author: olgapushkarenko@gmail.com*

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