

## APPLICATION OF A NEW METHOD OF DIAGNOSIS OF VARICOSE VEINS ANTERIOR RADICULAR LUMBAR SPINE

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Varicose epidural veins in the lumbar spine – a pathological condition in which there is an expansion of the epidural venous plexus, increased pressure in the veins, depositing a large amount of blood. Because of this, the extension veins is compression of the dural area and spinal nerve roots. Diagnosis of this pathological condition is complicated, often interpreted incorrectly. At the sanatorium Barnaul we have developed a new method for the diagnosis of varicose anterior radicular veins of the lumbar spine (invention Patent of Russia № 2372849, Authors: A. G. Remnyov, A. A. Oleynikov, 2008).

The essence of this invention lies in the fact that for the visualization of the anterior radicular veins change the scanning plane with the lateral edge of the convex probe is rotated cranially at an angle of 20 degrees, estimate the diameter of the anterior radicular veins and increasing the diameter to  $3.01 \pm 0.43$  mm or more are diagnosed with varicose veins of the anterior root in the direction of increasing diameter. The technical result is providing an objective visual determination of blood flow in the anterior radicular veins of the lumbar spine, the determination of the exact localization of the pathological process in the form of varicose anterior radicular veins of the lumbar spine, improving the quality of studies and enabling control of the results of treatment in the presence of varicose anterior radicular veins of the lumbar spine. In accordance with the claimed method the studied group of healthy patients (39) aged from 19 to 26 years old. In the study of the inventive method a group of healthy patients radicular veins on the monitor of the ultrasound scanner was defined as colored red stripe. Form the strip straight, smooth edge. When measuring diameters of the anterior radicular veins of the right and left values did not exceed 1 mm in all patients. In the study group of patients (84 patients aged 25–49 years) with signs of impaired venous blood flow at the level of the lumbar spine was determined signs of varicose veins of the anterior root at various levels of the lumbar spine, right



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and left. These features were expressed as an increase in diameter of the anterior root veins from 2.4 mm to 5.0 mm (average of  $3.07 \pm 0.42$ ).

Thus, the use of this method allows for an objective visual determination of blood flow in the anterior radicular veins of the lumbar spine, to establish exact localization of pathological process in the form of varicose anterior radicular veins of the lumbar spine, as well as to ensure the possibility of controlling the results of treatment in the presence of varicose anterior radicular veins of the lumbar spine.