

Features of the influence of degenerative changes of the cervical spine in the V₁ segment of the spinal artery on the character of extravasal compression

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BACKGROUND. The peculiarity of the cervical spine (CS) is a complex movable musculoskeletal, ligamentous-articular apparatus that carries a significant static and dynamic load. X-ray research methods could not based on the definition of degenerative changes in bones and joints, explain compression-reflex and myotonic syndromes in the pathology of the CS.

OBJECTIVE. To reveal the clinical, instrumental, and hemodynamic features of the course of vertebral artery compression syndrome (VACS) and their role in determining diagnostic and therapeutic tactics.

MATERIALS AND METHODS. The features of diagnosis and treatment tactics of 1,118 patients with degenerative lesions of the CS and VACS were analyzed. X-ray examination made it possible to solve common tasks of diagnosis. During the analysis of X-ray examination in segment V₁ showed degeneration of dystrophic changes.

RESULTS AND DISCUSSION. Analyzing the expressiveness of VACS in compression scores, we obtained the following results for the identified variants of dystrophic changes of VACS in the projection of the V_1 segment: variant I – 14.7 ± 1.84 ; variant II – 15.3 ± 1.72 ; variant III-A – 17.1 ± 1.78 ; variant III-B – 16.2 ± 1.67 ; variant IV-A – 16.8 ± 1.69 ; variant IV-B – 15.9 ± 1.48 . The analysis of degenerative-dystrophic changes of the CS at the level of the maximum positional compression showed that the expressiveness of the extravasal positional compression in the V_1 segment did not differ significantly in variants I, II, III.

CONCLUSIONS. 1. Degenerative changes in CS occur long before the appearance of the clinical manifestation of VACS. 2. The expressiveness of the degenerative damage of the musculoskeletal system of the CS according to the X-ray examination does not correspond to the clinical course of VACS. 3. Character of radiological functional instability in CS is not reflected in the complex clinical symptoms of VACS. 4. A multimodal approach to analgesia guarantees full control over all links of the pain process.

KEY WORDS: spine artery, compression syndrome, positional dependence.