

## 10. NEW CONCEPTS OF TREATMENT OF CARPAL TUNNEL SYNDROME



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**Introduction.** Carpal tunnel syndrome is the most common form of focal peripheral compressive mononeuropathy of the median nerve accompanied by pain, paresthesia, weakness along the nerve's path and represents approximately 90% of all tunnel neuropathies. The prevalence rate is higher among women than among men.

**Aim of study.** The study of the specialized literature of the physiopathological and clinical interrelationships affecting the peripheral nervous system, but also the analysis of the pharmacotherapeutic treatment in carpal tunnel syndrome.

**Methods and materials.** A retrospective study was carried out on 61 patients, analyzing the drug treatment used for patients admitted to the NNI "Diomid Gherman" with carpal tunnel syndrome during the period 2021-2023, comparing the available pharmacological treatment in the Republic of Moldova with the current information from the specialized literature review, articles published in electronic sources recognized by the international medical society: ScienceDirect, PubMed, Google Scholar, from the last 10 years. The data from the patients' reports were analyzed statistically: Microsoft Excel, Epi Info -3.5, depending on: gender, age, treatment administered, etc.

**Results.** It was found that out of 61 patients, 19 patients were men (31.1%) and 42 patients were women (68.9%), aged between 31-82 years. Of the total number of patients, 83.6% benefited from NSAID treatment, 34.4% - vitamins and metabolic preparations, 13.1% - central antispasmodics, 11.5% - gastroprotectors and 26.2% were administered antibiotics. The preparations administered in the treatment scheme are found in the national clinical protocol and they only offered a temporary improvement of the symptoms, at the same time new preparations such as linalool, acetyl-L carnitine etc. were not found in the list of indications, thus all patients were subjected to the intervention surgical - decompression of the median nerve. The literature data currently proposes a new ultrasound-guided treatment method with the local injection of platelet-rich plasma into the carpal tunnel in a single dose of 1-3.5 ml, demonstrating a success rate of 76.9% compared to other conservative treatments in terms of regarding medium-term efficacy in relieving inflammation and pain, peripheral nerve regeneration.

**Conclusion.** Currently, new drugs (plasma rich in platelets, acetyl-L carnitine, etc.) are not used in the Republic of Moldova in the treatment of carpal tunnel syndrome, which have an increased effectiveness in the medium term in relieving inflammation, pain, regulating angiogenesis, neurogenesis, and regeneration of peripheral nerves. Surgical decompression of the median nerve remains the main treatment option in avoiding further complications and improving the quality of life of patients.