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Overview of Treatment Techniques for Optic-Chiasmal Arachnoiditis

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Among the diseases of the central nervous system, leading to loss of vision and severe disability, opto-chiasmatic arachnoiditis should be especially highlighted. This pathology continues to occupy a leading place in the nosological structure of the causes of blindness and low vision for a long time [1-3]. Early diagnosis, timely pathogenetic treatment and subsequent rehabilitation of vision in patients with optic-chiasmal arachnoiditis is of great social importance, as it reduces the terms of disability and returns to work mainly people of young working age [4-7].

The main method of treatment of optic-chiasmal arachnoiditis since its description by the Argentine doctors Balado and Satanowsky in 1929 has been surgical [8-12]. However, the treatment was often ineffective, since the operation was performed only after the end of the inflammatory process, when atrophy of the optic nerve had already developed. This made complete recovery impossible or significantly delayed the restoration of visual functions. Also, surgery in patients in the acute and subacute stages of the disease could cause an exacerbation of meningoencephalitis and lead to a deterioration in the condition of patients and a decrease in visual functions, and sometimes even posed a threat to life.

The use of proteolytic enzymes, such as papain, lecozyme, by electrophoresis for the treatment of this pathology made it possible to exclude surgical intervention in some cases [13-19].

The introduction into practice of the technique of transcutaneous electrical stimulation of the optic nerves [20-23] also provided an opportunity to improve visual functions to a certain extent in the disease under consideration.

But these methods have a significant disadvantage, since their use is possible only in the chronic stage of the disease in order to avoid exacerbation of the inflammatory process.

A significant progress in the treatment of inflammatory diseases of the brain and its membranes was the method of long-term intracarotid infusion of medicinal substances proposed by H.S. Dralyuk [24]. For the treatment of all stages of the neurotic form of optic-chiasmal arachnoiditis, this method was first used by SV Mozhaev (1978). The author has shown that intracarotid infusion of medicinal substances significantly improves the results of treatment and makes it possible to refuse surgical treatment of the neuritic form of this nosology [25-27].

Despite the progress made in the treatment of this disease, the problem of restoring vision in patients with optic-chiasmal arachnoiditis still remains unresolved, as there is currently no consensus on the strategy for managing such patients. This is largely due to the underestimation by clinicians of the importance of isolating the neuritic and cystic - adhesive forms of optic-chiasmal arachnoiditis, which have a different pathogenetic mechanism of development. It is this factor that determines the need for a differentiated approach to the choice of methods of therapy for various forms and stages of this disease.

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