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DOI: 10.22448/AMJ.2016.15-16.72

UDC 617.731-007.23

THE RESULTS OF TREATMENT OF PRIMARY OPEN-ANGLE GLAUCOMA WITH THE USE OF ELECTRICAL STIM-ULATION

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Abstract. A comprehensive treatment of decompensated unstabilized open-angle glaucoma ot early stages, including medication and physiotherapy. The study was conducted in 23 patients (34 eyes). Under the conjunctiva in the lower-outer quadrant the peptide neuroprotector cortexin of 10 mg (0.5 ml) is injected followed by electrostimulation. To evaluate the results of treatment used visometry, perimeter, and electrosensitivity and electrolability of optic nerve, tonometry are used. Comprehensive treatment of compensated unstabilized glaucoma improves visual function and stabilizes glaucomatous process.

Key words: open-angle glaucoma, electrostimulation, cortexin.

The main reasons for the progression of neuropathy in glaucoma with normal intraocular pressure (IOP) is a chronic ischemia and hypoxia associated with a deficit of hemodynamic and rheological blood disorders regional and systemic nature [2, 4, 5]. These processes lead to the loss of cell nutrients, accumulation of free radicals, activation of certain enzymes and accumulation of metabolic products [1, 3, 6].

Material and methods. We observed 23 patients (34 eyes) with compensated unstabilized primary open angle glaucoma early stages (including 12 men and 11 women, aged 52-74 years). Antihypertensive therapy received 19 patients, 4 patients had pseudonormal pressure.

All patients under the conjunctiva in the lower-outer segment was added a solution of 10 mg Cortexin 0.5 ml (10 injections), followed by electrical stimulation. For electrostimulation electrostimulator used ophthalmic ESOM microprocessor with the following parameters: pulse duration of 10 ms, the amplitude and frequency of the pulse selected individually, the number of pulses in a pack of 5, the interval between the packs 2 seconds, the number of packs in the series 30, the interval between the series 30 seconds, the number of series (applying the active electrode to each eye) 4. Pacemaker was placed on the eyelid alternately in the temporal and nasal area of the orbit, the patient's eyes were closed. The course of treatment was 10 procedures. All patients before treatment, after 10 days and 6 months after treatment were visometry, perimetry, biomicroscopy, gonioscopy, ophthalmoscopy, tonometry, an electrically sensitive (ECH), elektrolabilnost (EL) of the optic nerve.

Results and discussion. The average level of IOP before and after treatment was $22,3 \pm 0,69$ mm Hg. Art. Dynamic observation after 6 months marked decompensation IOP in 3 eyes, in the future it was recommended surgery.

Studies of visual function in patients with OAG demonstrates the effectiveness of our method.

Discussion of Data. Our investigations have shown visual acuity after the treatment increased in 96% of patients, and the average for the group changed to 0.12%, the boundaries of the peripheral field in the amount of 8 meridians increased in 98% of cases, an average of 14%. Indicator ECH patients decreased on average by 140 uA EL increased by an average of 9 Hz to 96% of cases.

Thus, the proposed complex treatment methods include electrical stimulation in combination with the drug Cortexin improves the stability of neural elements eyes to pathological factors causing the decline of visual function and improve visual function, ie, a therapeutically effective method of preserving visual function

and stabilization of glaucomatous process.

Conclusion

- 1. Conduct of the optic nerve electrostimulation in combination with drug Cortexin is pathogenetically substantiated treatment unstabilized OAG.
- 2. The use of electrical stimulation with neuroprotective therapy in compensated IOP allows for improvement of visual acuity in 96% of cases, the expansion of the visual fields in 98% of patients.
- 3. Six months after the complex treatment of patients there is stabilization of visual function in 87% of cases, while 13% of indicators have declined, this is due to decompensation of intraocular pressure and progression of glaucomatous neuropathy.
- 4. Our result of treatment is based on improving the conductivity of bioelectric activity of the optic nerve, stimulation of reparative processes.

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Table 1. Changes in visual function in patients studied.

Examination	Before	After treatment	After 6
	treatment		months
visual acuity	0,72±0,08	0,84±0,04**	0,86±0,02**
total field of view of	435±20,5	495±16,0***	495±20,4**
EL (Hz)	28±2,6	37±3,2**	35±2,4**
ECH (ICA)	380±20,0	240±18,0**	260±20,0***
*, **, ***- Differences were significant compared with the original data			
(P <0.05, P <0.01, P <0.001, respectively)			

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DOI: 10.22448/AMJ.2016.15-16.73-74

UDC 616.24-002.14-071.4-071.6-072.7 DOI

THE DIAGNOSTICS OF COMMUNITY ACQUIRED PNEUMONIA IN PREHOSPITAL PERIOD

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The present day duration of pneumonia is quite different from the classical duration of this disease and that's why it is difficult to diagnose pneumonia in prehospital period.

Aim. To improve the diagnostic of community acquired pneumonia (CAP) the "golden standart" sugested by the leading Russian pulmonologists (Chuchalin A.Y., Sinopalnikov A.I., Selvestrov V.P.) was used. This "standart" includes 5 symptoms: acute onset of the disease with fever; cough with sputum of purulent character; physical symptoms: the shortening of percuss sound and auscultative phenomena; laboratory markers: leucocytosis or leucopenia with neutrophil movement of leucocytes formula and rontgenological symptoms: infiltration of pulmonary tissue.

Materials and methods. The frequency of these symptoms was studied to astimate the diagnostic im-