of the glandular epithelium (without specifying the degree of its severity) – in 19 (21.1%) persons, marked proliferation of the glandular epithelium with atypia of individual cells – in 2 (2.2%) cases, the cells of glandular epithelium of normal structure – in 11 (12.2%) women, degeneratively changed cells of glandular epithelium – in 4 (4.4%) patients, flattened cells of the cysts lining – in 1 (1.1%), changed red blood cells and macrophages with hemosiderine – in 1 (1.1%), blood elements, fat droplets – in 24 (26.7%) cases, bare nuclei of disrupt cells – in 4 (4.4%), not identified cellular elements – in 9 (10%) women. Smear cytogram was informative in 42 (58.9%) cases, uninformative - in 37 (41.1%). Then the sectoral resection of mammary gland was performed to the patients. According to the results of morphological study of surgical material, in most cases fibroadenoma was found – in 67 (74.4%) patients, proliferative mastopathy - in 8 (8.8%), fibrous mastopathy with an inflammation - in 1 (1.1%), fibrous mastopathy with elements of intraductal papilloma – in 1 (1.1%), chronic inflammation with the cells of foreign bodies - in 1 (1.1%), adenoma – in 2 (2.2%), a cyst with the growth of granulation tissue –in 1 (1.1%), chronic inflammation with the cells of foreign bodies – in 2 (2 2%), fibrous mastopathy - 3 (3.3%), breast fragment with multiple sclerosis - 1 (1.1%), fibrocystic mastopathy - 4 (4.4%).

Thus, the presence of pathology being obligate precancer was morphometrically proved in 83 patients (92.2%). And, uninformative cytograms were observed in 37 women (41.1%) that are much higher than indicated in the literature 18.6% [2].

Conclusion. These data suggest that cytological study is not a decisive factor in the choice of treatment tactics of patients with nodal mastopathy. The given method is only a part of the overall survey algorithm. In this category of patients an active following tactics should be applied: fine-needle aspiration biopsy from several areas of a node, including the control of the ultrasonic sensor; trepanobiopsy, allowing to get a larger amount of cells for cystoscopy; sectoral resection of mammary gland followed by pathological examination of surgical material.

Literature

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

Amur State Medical Academy, Blagoveshchensk, Russia¹
State autonomous healthcare institution of the Amur Region Polyclinic №1, Blagoveshchensk, Russia ²

Abstract A comprehensive treatment of decompensated unstabilized open-angle glaucoma at the 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) was injected, followed by electrostimulation. To evaluate the results of treatment visometry, perimeter, and electrosensitivity and electrolability of optic nerve, tonometry were used. The results of treatment showed increased peripheral visual field by an average of 60 ° (a total of 8 degrees meridians). 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.

**Table 1. Changes in visual function in patients studied.**

<table>
<thead>
<tr>
<th>Examination</th>
<th>Before treatment</th>
<th>After treatment</th>
<th>After 6 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>visual acuity</td>
<td>0,72±0,08</td>
<td>0,84±0,04**</td>
<td>0,86±0,02**</td>
</tr>
<tr>
<td>total field of view of</td>
<td>435±20,5</td>
<td>495±16,0***</td>
<td>495±20,4**</td>
</tr>
<tr>
<td>EL (Hz)</td>
<td>28±2,6</td>
<td>37±3,2**</td>
<td>35±2,4**</td>
</tr>
<tr>
<td>ECH (ICA)</td>
<td>380±20,0</td>
<td>240±18,0**</td>
<td>260±20,0***</td>
</tr>
</tbody>
</table>

*, **, *** - Differences were significant compared with the original data (P<0.05, P<0.01, P<0.001, respectively)

**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.

**Literature**


