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THE MODERN PHARMACOTHERAPY OF PRIMARY OPEN-ANGLE GLAUCOMA

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Introduction. Primary open-angle glaucoma (POAG) is a chronic progressive disease, that insults the optic nerve with evolution of specific optical neuropathy, characteristic changes of view field and is accompanied by periodic or temporal increasing of ophthalmotonus. The paropsiss and blindness could be the result of glaucoma. POAG is the most widespread form of glaucoma among the population of Ukraine.

Aim. The aim lies in studying of modern standards of POAG pharmacotherapy.

Materials and methods. The adapted clinical recommendations, compatible clinical protocols of medicare of patients with POAG were analysed.

Results and discussion. The exact pathophysiology of POAG is not known. It is supposed that myocilin gene mutations cause the dysfunction of trabecular network cells with subsequent decrease in outflow facility and elevation of intraocular pressure (IOP). Modern pharmacotherapy includes using medications that decrease IOP. Such medication classes as prostaglandin agonists, β -blockers, carbonic anhydrase inhibitors, α -agonists and combos are recommended. Prostaglandin agonists increase uveoscleral outflow. Among them as eye drops are recommended: latanoprost, bimatoprost, travoprost, unoprostone, tafluprost. The Beta-blockers lowers IOP by reducing the production of aqueous humor possibly thanks to blocking adrenergic beta receptors present in the ciliary body. The selective (betaxolol) and nonselective (cartenolol, timolol, levobunolol) beta-blockers are used as eye drops. Carbonic anhydrase inhibitors inhibit carbonic anhydrase in the ciliary body, that causes decreasing aqueous humor secretion. Among them brinzolamide, dorzolamide as eye drops and acetazolamide, methazolamide per os are recommended. Alpha-agonists, such as apraclonidine, brimonidine as eye drops, are used too. The most reasonable therapy is using the combined medications: brimonidine/timolol, timolol/dorzolamide, brinzolamide/brimonidine. It is necessarily to take into account the concomitant diseases of patient during making choice of therapy.

Conclusions. Modern pharmacotherapy includes using medications that decrease IOP. The most reasonable therapy is using the combined medications. It is necessarily to take into account the concomitant diseases of patient during making choice between different ways of therapy.

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