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Comparative study of topical application of timolol and verapamil in patients with glaucoma within ٦ months

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View references (٢٥)

Abstract

Introduction: As glaucoma is one of the most significant causes of blindness, and administration of calcium channel blockers is effective in reducing intraocular pressure (IOP) in rabbits and patients with normotensive glaucoma, we administered topical verapamil ٠,٢٥ in the human eye to compare its effect with timolol ٠,٥ in reducing IOP. Purpose: To compare the effect of timolol ٠,٥ and topical verapamil ٠,٢٥ in patients with open-angle glaucoma. Methods: It was a double-blinded study in which ١١٨ eyes (٥٩ individuals) were chosen and divided into ٢ groups (٣٠ individuals related to timolol and ٢٩ individuals related to verapamil). Patients who used drugs (systemic or topical) that could alter IOP and those with IOP <٢٢ mmHg were excluded from the study (١٩ eyes). We chose patients who did not use any drugs ٢٤ h prior to the study. Then applanation tonometry was done exactly before the administration of drugs and ٩٠ min later and the results were compared. Results: In timolol group, mean intraocular pressure in ٥٢ eyes (٢٧ right eyes and ٢٥ left eyes) decreased from ٣٢,٥٤٥ to ٣٠,٢٣٠ and mean pressure in verapamil group decreased from ٣٣,١٩٥ to ٣٠,٨٣٥. Conclusion: It seems that topical verapamil has a similar effect to timolol in patients with open-angle glaucoma, so it can be considered as a lowering intraocular pressure agent in glaucoma patients. © Mary Ann Liebert, Inc. ٢٠٠٩.

Reaxys Database Information

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Indexed Keywords

EMTREE drug terms: timolol; verapamil

EMTREE medical terms: adult; aged; antihypertensive therapy; article; blood pressure measurement; clinical trial; controlled clinical trial; controlled study; double blind procedure; drug effect; female; heart rate; human; human tissue; intraocular pressure; major clinical study; male; oculoplethysmography; open angle glaucoma; therapy effect; treatment outcome; treatment response

MeSH: Administration, Topical; Adult; Aged; Aged, ٨٠ and over; Antihypertensive Agents; Double-Blind Method; Female; Glaucoma, Open-Angle; Humans; Intraocular Pressure; Male; Middle Aged; Prospective Studies; Timolol; Tonometry, Ocular; Treatment Outcome; Verapamil
Medline is the source for the MeSH terms of this document.

Chemicals and CAS Registry Numbers: timolol, ٢٦٨٣٩-٧٥-٨; verapamil, ١٥٢-١١-٤, ٥٢-٥٣-٩;Antihypertensive Agents; Timolol, ٢٦٨٣٩-٧٥-٨; Verapamil, ٥٢-٥٣-٩

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