In patients with progressive normal tension glaucoma, the use of topical brimonidine may help to preserve visual function

The Science behind the Tip

A recent study has shown that visual function is more likely to be preserved with brimonidine 2% than with timolol 0.5% in patients with normal tension glaucoma despite similar intraocular pressure lowering effects\(^1\).

The problem with brimonidine is a significant incidence of ocular allergy, 20.2% at one year\(^1\) increasing to 32.3% after several years\(^2\).

The beneficial effect of brimonidine is presumably the consequence of neuroprotection, mediated by an interaction with alpha\(_2\)-adrenergic receptors in the retinal ganglion cells. Although the exact mechanism is not fully understood, there is experimental evidence in the rat model to support this hypothesis\(^3\). It is unlikely that a change in diastolic perfusion pressure is responsible for the difference between brimonidine and timolol\(^4\).

References


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