



Systemic beta-blocker and nitrates result in a lowering of IOP which has implications for the management of ocular hypertension and glaucoma

The Science behind the Tip

Systemic beta-blockers and nitrates are frequently used in the elderly. It has been known for many years that systemic beta-blockers lower the IOP¹. This was recently confirmed in a large population based, cross-sectional study². Oral beta-blockers reduced the IOP by 1mmHg and systemic nitrates by 0.7mmHg on average, compared to those not using the medication, independently of age, gender or BMI. A difference of 1mmHg is relatively large at a population level and translates into a 14% reduced risk of incident glaucoma at 5 years for individuals on oral beta-blockers and a 10% reduced risk for those on nitrates³.

Although the concurrent prescription of oral and topical beta-blockers is not optimal practice it does occur very often in real life⁴. Therefore, the commencement or stopping of these systemic medications may have implications for the management of a known glaucoma patient as it may require an adjustment in the topical medication regimen.

References

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