

Optic nerve sheath diameter in normal-tension glaucoma patients

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BACKGROUND: To report on the optic nerve sheath diameter (ONSD) in patients with normal-tension glaucoma (NTG) compared with controls without known optic nerve (ON) or intracranial disease.

METHODS: In 18 patients with NTG (mean age 64.9 ± 8.9 years; 7 women and 11 men), CT of the orbit was performed. 17 age- and gender-matched patients without ON or intracranial disease, who underwent CT of the orbits for non-ophthalmological reasons, served as controls. The widest intraorbital ONSD in axial sections was measured using a standardised technique. Study design: unmasked. Statistical analysis was performed using an independent two-tailed t Test and the non-parametric Spearman correlation test.

RESULTS: ONSD was significantly (p<0.05) increased in NTG patients compared with controls. **CONCLUSIONS:** An increased ONSD is generally associated with increased intracranial pressure; however, ONSDs in a group of NTG patients also were significantly increased compared with controls. ON sheath compartmentation and thinning of the ON sheath are two possible explanations for an increase in the ONSD in patients with NTG.

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