

Reduction in Blood Glutathione Levels Occurs Similarly in Patients with Primary-Open Angle or Normal Tension Glaucoma

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PURPOSE: To investigate in parallel the systemic glutathione levels of patients suffering from primary open angle glaucoma (POAG) or normal tension glaucoma (NTG) with comparable functional loss.

METHODS: Thirty-four POAG patients, 30 NTG patients and 53 controls were subjected to blood analysis to detect the level of circulating glutathione in its reduced (GSH) and oxidized (GSSG) forms. Systemic blood pressure (BP) and ocular perfusion pressure (OPP) parameters were also determined.

RESULTS: Independent of age, POAG and NTG patients demonstrated significantly lower GSH and t-GSH levels than age-matched controls ($p < 0.05$).

CONCLUSION: This study demonstrates for the first time and that both POAG and NTG patients exhibit lower GSH and t-GSH levels than age-matched controls, indicating a similar general compromise of the antioxidant defence systems may exist in both conditions.

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