

Hypertension overtreatment may speed vision loss in glaucoma

San Francisco, CA - Certain glaucoma patients may be at increased risk for vision loss or progressive worsening of their eye disease if they are also receiving aggressive hypertension treatment, according to a new study [[1](#)].

"Our research calls into question the saying that 'the lower the blood pressure the better,' and suggests that overtreatment of systemic hypertension can lead to vision loss in normal-tension glaucoma," lead investigator **Dr Carlos De Moraes** (New York University Langone Medical Center, NY) said during a presentation here at the [American Glaucoma Society \(AGS\) 2013 Annual Meeting](#).

Among the 85 patients in the study, 32% had both systemic hypertension and normal-tension glaucoma, or glaucoma that causes vision loss and optic nerve damage without abnormal eye pressure, said De Moraes.

In addition to treatment for hypertension, researchers found the amount and duration of decreases in nocturnal blood pressure was a predictor for progression.

Studies have previously suggested that nocturnal hypotension is more common among patients with normal-tension glaucoma and sustained progressive visual field loss. In this new study, patients with normal-tension glaucoma who also had documented visual field defects underwent ophthalmologic examinations at six-month intervals and had their blood pressure monitored every 30 minutes for 48 hours during the day and night.

Results indicated that treated hypertensive normal-tension glaucoma patients who had long and sustained blood-pressure dips at night were at increased risk of progression compared with those with normal systemic blood pressure ($p=0.02$).

The use of beta-blockers had no protective effect against progression of visual field loss among patients in the study, De Moraes pointed out.

Team approach

"We need to accurately identify patients at highest risk for progression in normal-tension glaucoma," De Moraes said. "Assessing these patients, particularly if they have systemic hypertension, requires a team approach with cooperation between cardiologists and ophthalmologists."

Dr Andrew Iwach (Glaucoma Center of San Francisco, CA), a spokesperson for the **American Academy of Ophthalmology**, said that for most glaucoma patients, the key risk factor is abnormally high pressure inside the eye, and many respond well to standard therapies. But treating normal-tension glaucoma, particularly if they have other systemic diseases, can be more complex.

"When these patients have hypertension, it does require a team effort to manage the patient's risk factors," Iwach said. "The consequences of untreated high blood pressure are significant, but we also need to protect the vision of those who may be on blood-pressure medications."

Progression of vision loss in a patient with normal-tension glaucoma and systemic hypertension may indicate that nocturnal measurements of blood pressure may be useful, Iwach noted.

The investigators and Iwach reported no relevant financial relationships.

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Source

1. De Moraes CG. Large and sustained blood pressure dips are associated with visual field progression in normal-tension glaucoma. American Glaucoma Society 2013 Annual Meeting; March 1, 2013; San Francisco, CA.

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