Normal pressure glaucoma

Written by Administrator Wednesday, 13 January 2010 11:28 - Last Updated Sunday, 21 October 2012 18:53

Normal pressure glaucoma (or normal tension glaucoma) is an optic neuropathy associated with low intraocular pressure (ie less than 22 mmHg).

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The following are known associations of normal pressure glaucoma:

- steroid use (eg nasal sprays, inhaled or oral steroids, or steroid creams) in this case steroids may infact elevate IOP but this may not be detected and be falsely diagnosed as normal pressure glaucoma
- vasospasm migraine / Raynauds
- coagulopathies previous blood loss or shock like epsiode
- systemic nocturnal hypotension
- autoimmune disease
- thyroid disease (increased risk)
- sleep apnoea (especially in overweight men)
- Alzheimer's disease

Other problems to be considered

- intermittent IOP elevation can be excluded with diurnal IOP measurements
- burnt out glaucoma
- congenital anomaly
- · myopia with peri-papillary atrophy
- optic nerve coloboma
- vascular etiology
- carotid occlusion
- previous blood loss
- hereditary optic neuropathy
- · Lebers optic neuropathy
- tonometric error (thin cornea)

Investigations

- FBC rule out anaemia
- CRP / ESR rule out a condition called "anterior ischaemic optic neuropathy"
- VDRL/FTA syphilis is a very rare association
- ANA autoimmune diseases, also Ro, La, Sm
- paraproteinaemia rule out lymphoproliferative disease
- Lebers mitochondrial testing where indicated

Imaging

• HRT / OCT / GDx

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- MRI if asymmetry, unusual VF, progressive fields, dyschromatopsia, APD with mild cupping
- carotid dopplers
- CXR to rule out sarcoidosis

Other tests

24 hour ambulatory blood pressure monitoring

Treatment

- ALT not recommended
- Trabeculectomy with Mitomycin C, if IOP in single digits is required
- In some cases, your physician might recommend Ginkgo Biloba (40mg three times a day). There is some evidence that points to a benefit here, but this medication is not suitable for everyone and it's use is advised on a case-by-case basis, after discussion with your glaucoma specialist.
- Future medication, for selected subgroups of patients with glaucoma, may include memantine, a tablet medication that may have beneficial protective effects on the optic nerve (randomised controlled trials are awaited).



Ginkgo Biloba - not recommended for most patients with glaucoma - little evidence for benefit.