Optic nerve conditions

Optic atrophy

- Anything that can compromise ganglion cell function can cause optic atrophy over time, and more broadly optic neuropathy.

- Optic atrophy refers to the death of the retinal ganglion cell axons that comprise the optic nerve.

- The typical sign of optic atrophy is the optic nerve pallor.

- This is the end stage of a process resulting in optic nerve damage anywhere along the path from the retina to the lateral geniculate nucleus.

- Because the optic nerve fiber layer is thinned or absent, the disc margins appear sharp and the disc looks pale, probably reflecting absence of small vessels in the disc head.

- The main symptom of optic atrophy is vision loss. Any other symptoms are attributable to the underlying process that caused the disc damage (such as pain with angle closure glaucoma).

- Optic atrophy is usually not difficult to diagnose, because of the characteristic pale optic disc, but the cause for the optic atrophy may be difficult to ascertain. Sometimes the cause of vision loss may be difficult to differentiate between subtle optic neuropathy and disease of the retina (or both).

- Visual field defect patterns include: papillomacular defect (ceccentral scotoma), arcuate defect (include altitudinal) or temporal wedge defect (nasal fibers) for prechiasmal, bitemporal (superior) field defects for chiasmal lesions, and hemianopsia for post-chiasmal lesions.