Optic nerve conditions

Glaucoma

- Glaucoma is the most common optic neuropathy in the adulthood. It is defined as a multifactorial optic neuropathy, which is related to abnormal ocular hydrodynamics that damage the optic nerve.

- This pathology is characterized by increased cupping of the optic disc, with corresponding visual field defect, due to retinal ganglion cell loss.

- Glaucoma tends to run in families. In some people, scientists have identified genes related to high eye pressure and optic nerve damage.

- Types of glaucoma include:
  - **open-angle glaucoma** is the most common form of the disease. The drainage angle formed by the cornea and iris remains open, but the trabecular meshwork is partially blocked. This causes pressure in the eye to gradually increase. This pressure damages the optic nerve.
  - **angle-closure glaucoma** occurs, when the iris bulges forward to narrow or block the drainage angle formed by the cornea and iris. As a result, fluid can't circulate through the eye and pressure increases. Some people have narrow drainage angles, putting them at increased risk of glaucoma. **Acute angle-closure glaucoma is a medical emergency.**
  - **normal-tension glaucoma:** the optic nerve becomes damaged even though the eye pressure is within the normal range. No one knows the exact reason for this. The optic nerve may be more sensitive or less blood is supplied to the optic nerve. This limited blood flow could be caused by atherosclerosis or other conditions that impair circulation.
  - **pigmentary glaucoma:** pigment granules from the iris build up in the drainage channels, slowing or blocking fluid exiting the eye. Physical activities sometimes stir up the pigment granules, depositing them on the trabecular meshwork and causing intermittent pressure elevations.

[Video]