Figure 1.2  External landmarks.
(Courtesy Christine Gralapp.)

Figure 1.3  Extraocular muscles.
(Courtesy Christine Gralapp.)
Shine light in eye

Pupillary constriction

Postganglionic fibres in ciliary nerves to constrictor pupillae

Ciliary ganglion

Preparangiong parasympathetic fibres in III

Midbrain

Edinger-Westphal nucleus

Midbrain pretectal nucleus

Before reaching lateral geniculate body, some fibres branch to midbrain

Impulses pass along optic nerve, chiasma, tract
Visual field defects following various lesions of the visual pathways.
Eye Exam

Visual acuity – •
Snellen eye chart, counting fingers, light perception •
CN II – VII – •
  Pupils, visual fields, EOMs, facial droop •
Inspection/palpation of eye and surrounding structures - •
  Asymmetry, proptosis, enophthalmos, orbital rim
Lids/ducts •
Slit lamp – Anterior segment •
Fundoscopy – Posterior segment •
Contraindications to dilation – significant head trauma, – suspected rupture, history of glaucoma
Intraocular pressure - Goldman applanation tonometry, Tonopen •
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Kiesselbach's plexus (network of arteries in the front nasal cavity)

Anterior ethmoid arteries

Hard palate (roof of the mouth)

Bleeding from the nostril

Nose
THE END
Pathophysiology and diagnostic workup of optic nerve avulsion

Tawfiq A. Almezeiny, MD.

Optic nerve injuries may include infarction, transaction, or avulsion. Compression by perineural hemorrhage or fracture of the optic canal may also occur. Any sites along the anatomic course may be injured, including the intraocular, intracanalicular, or rarely the intracranial chiasmal segment. Optic edematous optic nerve into its sheath posterior to the lamina cribrosa, total retinal detachment, and vitreous hemorrhage. The results suggested a diagnosis of acute traumatic optic nerve avulsion (Figure 1). Therefore, he was admitted urgently for surgical decompression of the orbital canal, and open reduction and fixation of the complex facial fractures. No immediate postoperative complications developed. However, postoperatively, neither visual acuity nor the extraocular movements improved during the first week. Unfortunately, at one-month follow-up, he had no light perception.