Gonioscopy should be performed using the minimal possible levels of illumination in order to reliably detect appositional angle closure

The Science behind the Tip

Anterior chamber angle width varies dramatically with illumination (figure and video in ref. 1)\(^1\)^2. Visible wavelength based examination methods such as gonioscopy can cause pupillary constriction and thereby open an angle in which there is irido-trabecular contact at lower light levels. The narrowest, dimmest possible slit-lamp beam with which the corneal wedge is still identifiable should be used in a fully darkened room. A 1mm long beam is sufficient and should be kept well away from the pupil.

Other subtle signs of iris-trabecular meshwork apposition such as pigment smudging\(^3\) are useful adjuncts to direct observation of iris-meshwork contact but are no substitute for adequate examination conditions. Ultrasound biomicroscopy and newer imaging techniques such as anterior chamber ocular coherence tomography allow cross-sectional imaging without inducing miosis.

References


Contributors: Gus Gazzard and Paul Foster, London

Diagnosis, Gonioscopy