INTERNATIONAL COUNCIL of OPHTHALMOLOGY

Primary Angle Closure
(Initial Evaluation and Therapy)

(Ratings: A: Most important, B: Moderately important, C: Relevant but not critical
Strength of Evidence: I: Strong, II: Substantial but lacks some of I, III: consensus of expert opinion in absence of evidence for I & II)

Initial Exam History (Key elements)

- Ocular history (symptoms suggestive of intermittent angle-closure attacks) **(A:III)**
- Family history of acute angle-closure glaucoma **(B:II)**
- Systemic history (e.g., use of topical or systemic medications) **(A:III)**

Initial Physical Exam (Key elements)

- Refractive status **(A:III)**
- Pupils **(A:III)**
- Slit-lamp biomicroscopy **(A:III)**
    - Conjunctival hyperemia (in acute cases)
    - Central and peripheral anterior chamber depth narrowing
    - Anterior chamber inflammation suggestive of a recent or current attack
    - Corneal swelling with or without microcystic edema (in acute cases)
    - Iris abnormalities, including diffuse or focal atrophy, posterior synechiae, abnormal pupillary function, irregular pupil shape, and a mid-dilated pupil (suggestive of a recent or current attack)
    - Lens changes, including cataract and glaukomflecken
    - Corneal endothelial cell loss
- Measurement of IOP **(A:III)**
- Gonioscopy of both eyes **(A:III)**
- Evaluation of fundus and optic nerve head using direct ophthalmoscope or biomicroscope **(A:III)**

Management Plan for Patients in Whom Iridotomy is Indicated

- Laser iridotomy is the preferred surgical treatment for acute angle-closure crisis. **(A:II)**
- In acute angle-closure crisis, usually use medical therapy first to lower the IOP, to reduce pain and clear corneal edema in preparation for iridotomy. **(A:III)**
- Perform prophylactic iridotomy in fellow eye if chamber angle is anatomically narrow. **(A:II)**

Surgery and Postoperative Care for Iridotomy Patients

- The ophthalmologist who performs surgery has the following responsibilities:
    - Obtain informed consent **(A:III)**

    - Ensure that preoperative evaluation confirms the need for surgery **(A:III)**
    - Perform at least one IOP check within 30 minutes to 2 hours of surgery **(A:III)**
    - Prescribe topical corticosteroids in the postoperative period **(A:III)**
    - Ensure that the patient receives adequate postoperative care **(A:III)**
- Follow-up evaluations include:
    - Evaluation of patency of iridotomy **(A:III)**
    - Measurement of IOP **(A:III)**
    - Gonioscopy, if not performed immediately after iridotomy **(A:III)**
    - Pupil dilation to reduce risk of posterior synechiae formation **(A:III)**
    - Fundus examination as clinically indicated **(A:III)**
- Use medications perioperatively to avert sudden IOP elevation, particularly in patients with severe disease. **(A:III)**

Follow-up of Patients with Iridotomy:

- After iridotomy, follow patients with glaucomatous optic neuropathy as specified in the Primary Open-Angle Glaucoma PPP. **(A:III)**
- After iridotomy, patients with a residual open angle or a combination of open angle and some PAS with or without glaucomatous optic neuropathy should be followed at least annually, with special attention to repeat gonioscopy. **(A:III)**

Education for Patients if Iridotomy is Not Performed:

- Inform patients at risk for acute angle closure about symptoms of acute angle-closure crisis and instruct them to notify immediately if symptoms occur. **(A:III)**
- Warn patients of medications that could cause pupil dilation and induce an acute angle-closure crisis. **(A:III)**

* Adapted from the American Academy of Ophthalmology Summary Benchmarks, November 2010 (www.aao.org)