

## **Introduction**

Glaucoma is recognized as the second cause of blindness in the world, and one of the most common causes of irreversible blindness (**Quigley, 1996**).

Although primary open angle glaucoma is more prevalent worldwide, primary angle closure glaucoma (PACG) may be responsible for greater morbidity including bilateral blindness (**Foster and Johnson, 2001**).

Risk factors for PACG include: females, black races, old ages, and anatomic abnormalities (shallow anterior chamber, small corneal diameter, and increased lens thickness) (**Mandell et al., 2003**).

PACG occurs when sufficiently extensive apposition or synechial adhesion of the peripheral iris to trabecular meshwork leads to raised intraocular pressure (IOP). If this rise is maintained, the final consequence will be the characteristic glaucomatous optic neuropathy and visual field loss (**Varma et al., 2006**).

Laser iridotomy and medical treatment may fail to lower the IOP to a safe level when the angle is extensively closed (**Lai et al., 2001**).

When more than 270° of the angle is closed by peripheral anterior synechia, medical therapy is usually ineffective, and surgical intervention becomes necessary. The traditional treatment modality in this condition is trabeculectomy. Trabeculectomy is associated with significant risk of complications such as hypotony, shallowing of the anterior chamber, malignant glaucoma, endophthalmitis, and suprachoroidal hemorrhage; however, it still the traditional and most widely used operation for PACG (**Bellucci et al., 1997**).

Another newly developed way in the management of this disease depends on the fact that extracting a thick and anteriorly positioned lens significantly deepens the anterior chamber and widens the drainage angle. It has been shown that cataract surgery successfully lowers the IOP in patients with uncontrolled angle closure glaucoma and may have certain advantages over trabeculectomy. After cataract surgery, the trabecular meshwork will remain occluded by peripheral anterior synechia (PAS) despite anterior chamber deepening. The trabecular meshwork will only be exposed if goniosynechialysis is performed to break the PAS (**Razeghinejad, 2008**).

Trabeculectomy is still the traditional and conventional method for management of PACG. Goniosynechialysis seems to be an effective and promising surgical procedure in the treatment of patients with PACG and angle restoration whether controlled or uncontrolled by medication (**Razeghinejad, 2008**).