

TABLE 61-4. PHACOEMULSIFICATION TECHNIQUES IN INTRAOPERATIVE FLOPPY IRIS SYNDROME

Clear-cornea incision construction (long and anterior)
Soft-shell technique with viscoelastic
Gentle hydrodissection
Healon 5 with low-flow parameters
Phacoemulsification below anterior capsule
Nucleus flip/phaco above iris plane
Avoid infusion directed at level of iris plane
Biaxial microincisional cataract surgery

TABLE 61-5. CLUES TO ZONULE WEAKNESS IN PSEUDOEXFOLIATION

Preoperative
<ul style="list-style-type: none"> • Anterior chamber depth asymmetry • Phacodonesis/iridodonesis/lens subluxation • Visibility of lens equator on eccentric gaze • Decentered nucleus on primary gaze • Iridolenticular gap • Changes in contour of lens periphery • <2.5 corneal thickness axial depth
Intraoperatively
<ul style="list-style-type: none"> • Pseudoelastic capsule (Figure 61-4) • Anterior chamber depth instability • Limited nucleus rotation • Dramatic lens position shift

Pseudoexfoliation Syndrome

Zonule weakness may present in up to 2.5% of pseudoexfoliation (PXE) eyes and may lead to a higher rate of complicated surgery necessitating vitrectomy.^{4,21-23} Preoperative and intraoperative clues to zonule weakness are presented in Table 61-5 and Figure 61-4.

When anticipating the possibility of dealing with an unstable nucleus due to zonule weakness, the surgeon may consider a posterior limbal incision or scleral flap to enable an easy transition to extracapsular cataract extraction (ECCE), if required. Effective hydrodissection is critical to achieve free rotation of the nucleus within the capsular bag and to minimize extension of aspiration forces to the capsular equator during phacoemulsification. Capsule retractors, capsule tension rings (Figure 61-5), or capsule retaining segments can be used to distribute forces and to oppose capsule constriction and zonule separation during phacoemulsification.

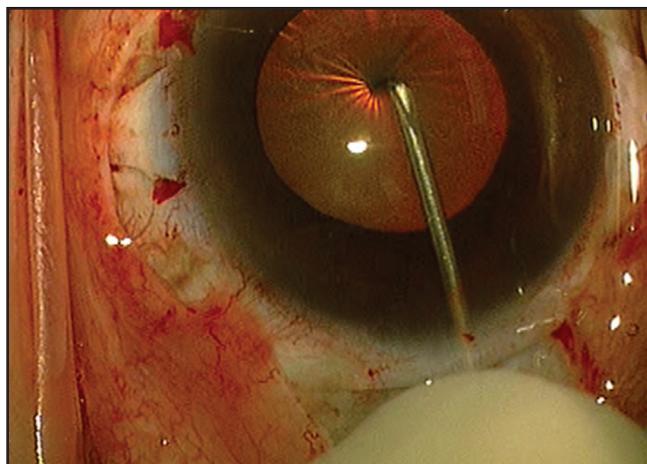


Figure 61-4. Pseudoelastic capsule in pseudoexfoliation.

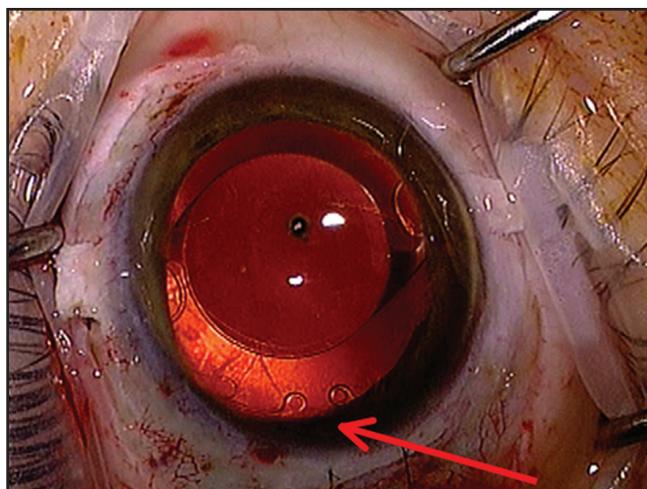


Figure 61-5. Capsular tension ring in pseudoexfoliation.

Anterior chamber, iris sutured, or scleral sutured IOLs may be required if capsule/zonule support is inadequate.

Crowded Anterior Chamber

As mentioned previously, patients with narrow angles may benefit the most from cataract extraction by opening of the angle with resultant decline in IOP in nonsynechial angle closure.² With synechiae present, intraoperative goniosynechialysis at the completion of cataract surgery can be performed to aid results.^{24,25}

Nanophthalmic and high hyperopic patients often have deep set eyes, small orbits, tight lids, high lens/eye volume ratio, small corneas, thick sclera, and miotic pupils, leading to potentially complicated surgery. Because of space constraints, surgeons may consider using a small-volume anesthetic block with external compression. Keratome entry into the anterior chamber should be anterior to avoid iris prolapse. Healon V (Alcon Laboratories, Fort Worth, TX) can be effective in maintaining anterior chamber depth and flattening the