reduce the recurrence rate, most clinicians prefer to cover the bare sclera with tissue (eg, conjunctival autograft) at the time of surgery. See Chapter 5.

**CLINICAL PEARL**

In patients with visually significant cataract and pterygium, a staged surgical approach is indicated. After the pterygium is excised and the corneal contour has stabilized, cataract surgery can be planned; this approach can lead to improved long-term refractive results (Fig 7-5).

**Conjunctival Concretions**

Concretions appear as small cystic lesions, which are filled with epithelial and keratin debris, glycosaminoglycans (GAGs; previously called mucopolysaccharides), and mucin. They are visible as small, yellow-white dots in the palpebral conjunctiva (Fig 7-6) of older patients or patients who have had chronic conjunctivitis or meibomian gland dysfunction. Concretions are almost always asymptomatic, but they may erode through the overlying epithelium, causing foreign-body sensation. If symptomatic, concretions can be easily removed at the slit lamp with topical anesthesia and a 25-gauge needle.

**Conjunctival Epithelial Inclusion Cysts**

Conjunctival epithelial inclusion cysts are clear or transilluminating lesions that appear in either the bulbar conjunctiva or the conjunctival fornix and are typically incidental findings on examination. Because these cysts are usually asymptomatic, they generally do not require treatment. If large or elevated, a cyst can cause irritation (Fig 7-7). If the cyst is symptomatic, incision and drainage with a needle at the slit lamp may be sufficient. Piercing the cyst in multiple locations may prevent recurrence (Video 7-1). If the cyst recurs, complete excision may be necessary.
Conjunctival inclusion cysts can be congenital or acquired. Most acquired cysts of the conjunctiva are derived from an inclusion of conjunctival epithelium within the substantia propria. The implanted cells proliferate to form a central fluid-filled cavity that is lined with nonkeratinized conjunctival epithelium. Conjunctival cysts may also form from ductal epithelium of the accessory lacrimal glands; these cysts are lined with a double layer of
External Disease and Cornea

Figure 15-34  Penetrating metallic foreign body from rocket-propelled grenade, Craig Joint Theater hospital, Bagram Air Base, Afghanistan. Note iris incarceration at entrance wound at the limbus, anterior capsule laceration, and cortical fluffing of lens material within the pupil and metallic foreign body lodged in the angle superiorly. (Courtesy of Charles D. Reilly, MD.)

discoloration of the endothelium and deep stroma is visible. Removal of the foreign body can ameliorate the discoloration (Video 15-3). If left untreated, ocular siderosis can cause permanent damage to the retinal pigment epithelium and inner retinal layers and ultimately induce optic nerve atrophy.

VIDEO 15-3  Removal of metallic foreign body causing siderosis from angle.
Courtesy of Joseph D. Iuorno, MD.

Closure of iris lacerations may decrease the formation of anterior or posterior synechiae while reducing glare and polyopia from severe corectopia; however, it may be difficult to achieve during the primary procedure. Iridodialysis may cause monocular diplopia and an eccentric pupil if left untreated. If corneal opacity prevents safe repair of internal ocular injury, repairs can be performed secondarily. The McCannel technique and the Siepser knot are popular approaches for repair of an iris defect (Video 15-4; Fig 15-36).

VIDEO 15-4  Modified Siepser knot.
Courtesy of Michael E. Snyder, MD.

Prophylactic intraoperative antibiotics to cover both gram-positive and gram-negative organisms may be given by subconjunctival injection at the conclusion of the repair. Intravitreal antibiotics such as vancomycin 1 mg and ceftazidime 2.25 mg can be considered for contaminated wounds involving the vitreous.

Postoperative management
Postoperatively, therapy is directed at preventing infection, suppressing inflammation, controlling IOP, and relieving pain. Patients may be given intravenous antibiotics (eg, a cephalosporin and an aminoglycoside) for 48 hours or an oral antibiotic with good vitreous penetration, such as moxifloxacin 400 mg per day for 3–5 days. Topical antibiotics
are generally instilled 4 times a day for 7 days or until epithelial closure of the ocular surface is complete. Topical corticosteroids may be given 4–8 times a day, depending on the amount of inflammation or the risk of infection. Corticosteroid eyedrops and cycloplegics are slowly tapered as the inflammation subsides. A fibrinous response in the anterior chamber may respond well to a short course of systemic prednisone. IOP should