

**Figure 13-11** Clinical photograph of a localized conjunctival bleb. (Courtesy of Jody Piltz-Seymour, MD.)

Palanca-Capistrano AM, Hall J, Cantor LB, Morgan L, Hoop J, WuDunn D. Long-term outcomes of intraoperative 5-fluorouracil versus intraoperative mitomycin C in primary trabeculectomy surgery. *Ophthalmology*. 2009;116(2):185–190.

### Postoperative Complications and Management

Although meticulous surgical technique is important, the success of an incisional glaucoma procedure depends to a great extent on careful postoperative management (Fig 13-12). Many complications can arise during the early and late postoperative period, compromising the success of the surgery, vision, and ocular health (Table 13-4). Thus, timely identification of potential complications is imperative.

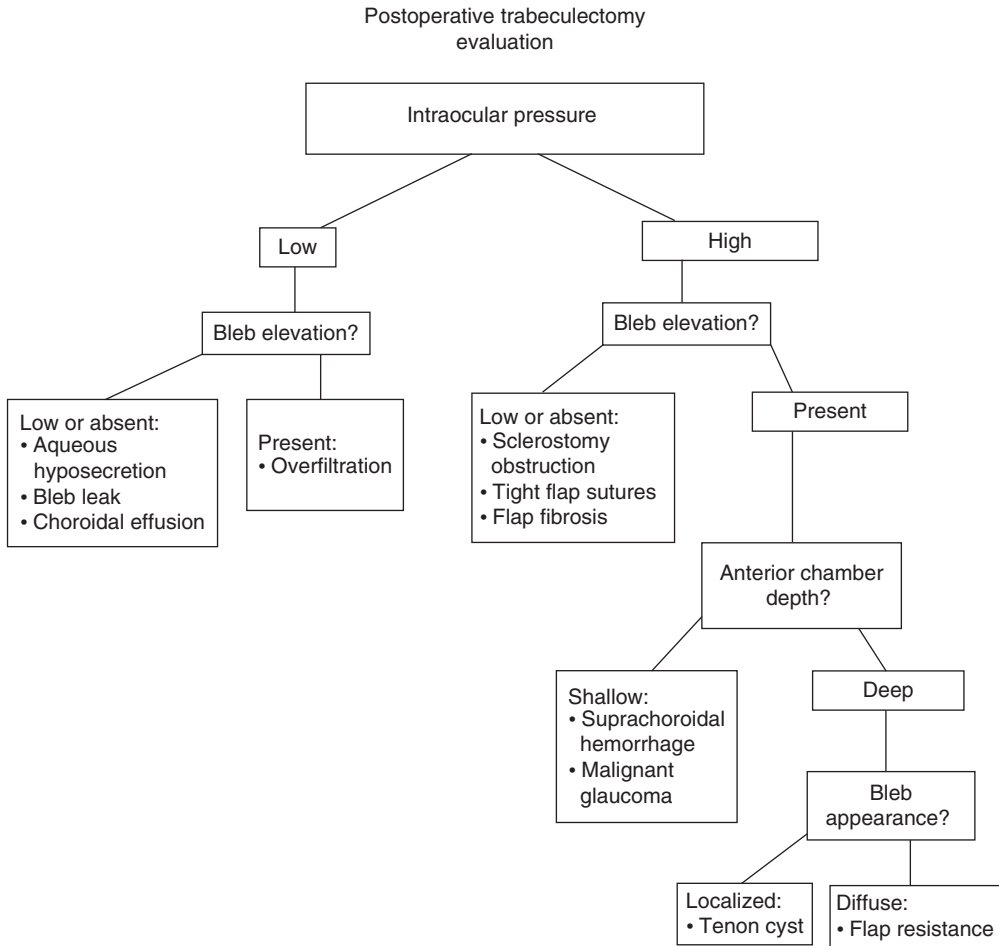
*Overfiltration* occurs when there is too little resistance to aqueous flow from the anterior chamber into the subconjunctival space. It is usually caused by inadequately tightened scleral flap sutures. Other causes include intraoperative flap buttonhole and proximity of the fistula to the edge of the flap. Overfiltration may be associated with an exuberant bleb (in the absence of a bleb leak) and a shallow anterior chamber. Treatment options include reducing topical steroids (to allow the development of subconjunctival fibrosis) and placing additional scleral flap sutures (Video 13-4). The development of hypotony maculopathy (optic nerve and/or retinal edema and radial macular folds causing a decline or distortion in vision) is an indication for intervention.



**VIDEO 13-4** Transconjunctival scleral flap suturing at slit lamp.  
Courtesy of Susan Liang, MD.



*Bleb leaks* can occur at any point in the postoperative course. In the early postoperative period, leaks most commonly occur at the incision site. Unrecognized buttonholes



**Figure 13-12** Algorithm depicts suggested evaluation approach after trabeculectomy. (Courtesy of Chandrasekharan Krishnan, MD.)

and flap suture erosion through the conjunctiva can also lead to leaks. They are often symptomatic (patients report experiencing excessive tearing) and can be found by performing a Seidel test (Video 13-5; see also Chapter 4). In addition to hypotony, patients with a leak may have a shallow or normal anterior chamber depth and a low-lying bleb. Untreated leaks can lead to early bleb fibrosis and infection.



**VIDEO 13-5** Identifying a bleb leak.  
Courtesy of Chandrasekharan Krishnan, MD.



There are several treatment options. Decreasing topical steroids can promote fibrosis and healing. Aqueous suppressants reduce the flow through the defect, allowing the leak to seal through epithelialization. Placement of an oversized contact lens can provide a scaffold for re-epithelialization and may also tamponade the leak. Suturing the site of the leak may be necessary if conservative measures fail.