Blepharoplasty Techniques in Asians

60

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60.1 Introduction

There are definite differences between the upper-eyelid anatomy of the Asian and of the Caucasian (Table 60.1).

The double-eyelid operation is classified into:

1. Non-incision method
   (a) Non-buried-suture method
   (b) Buried-suture method
2. Partial-incision method
   (a) Non-buried-suture method (fixation to tarsus or levator aponeurosis)
   (b) Buried-suture method (fixation to tarsus or levator aponeurosis)
3. Incision method

60.2 Non-Incision Method

The non-incision method cannot be used in patients with too much fat because the fat cannot be removed. The procedure has a short recovery time and minimal complications.

In the non-buried-suture technique, there is fixation of the skin at the level of the tarsus (Fig. 60.1). The eyelid crease depends on the position (height) of the deep portion of the suture (Fig. 60.2). The suture can be partially exposed at the side of the conjunctiva or the suture can be within the palpebral tissue. Figure 60.3 shows the results of the operation.

Several buried-suture methods are available: Maruo's technique (Figs. 60.4, 60.5), Harada and Kawamoto's method (Fig. 60.6), Umezawa's method (Fig. 60.7), Muto's technique (Figs. 60.8, 60.9), Boo-Chai's method (Figs. 60.10, 60.11). Multiple buried sutures can be placed (Fig. 60.12).

60.3 Partial-Incision Method

The partial-incision method can have fat removed with a minimal incision. There is a short recovery time and minimal complications.

The partial-incision method can be classified as

1. Single partial incision: about 5–15-mm incision at the midline
2. Multiple partial incisions: about 2-mm incision at multiple points

The partial-incision technique with multiple incisions requires small incisions at the upper eyelid and exposure of the orbital septum, dissecting the orbital septum, incising the septum and exposing the orbital fat. The fat is removed carefully and the lateral bulging is then decreased (Fig. 60.13).

Double eyelids are made with full thickness tarsus–dermis buried sutures (Figs. 60.14, 60.15).

Table 60.1 Difference between upper-eyelid anatomy of Asians and Caucasians

Anatomic feature	Caucasian eyelid	Asian eyelid
Preseptal fat pad location	Preseptal	Preseptal and pretarsal
Septum–levator fusion point	Above tarsus	As low as the pretarsal plane
Tarsal height	9–10.5 mm	6.5–8.0 mm
Medial lid crease origin	Medial eyelid	Medial canthus
Presence of crease	100%	50%

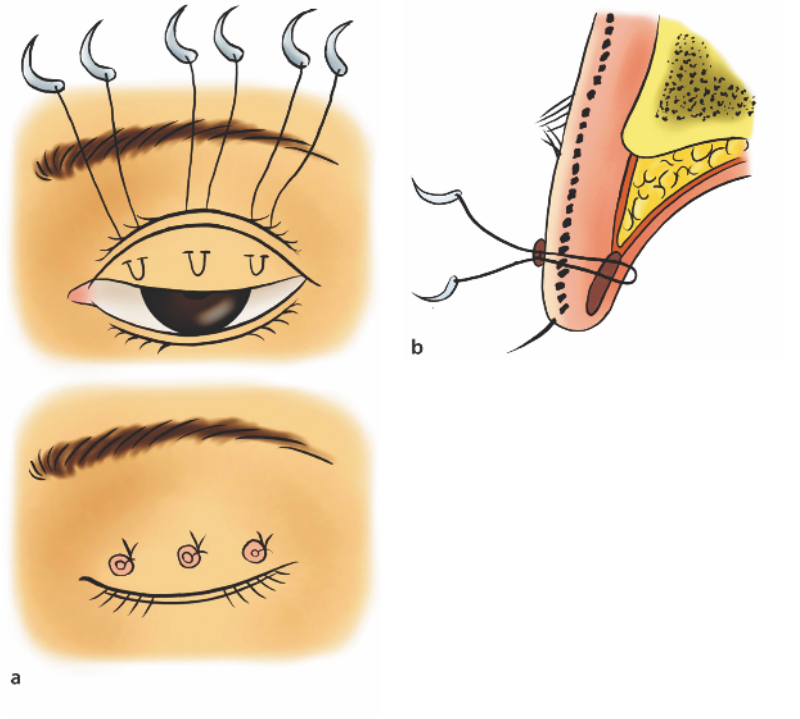

Fig. 60.1 **a** Fixation at tarsus level. **b** Position of suture

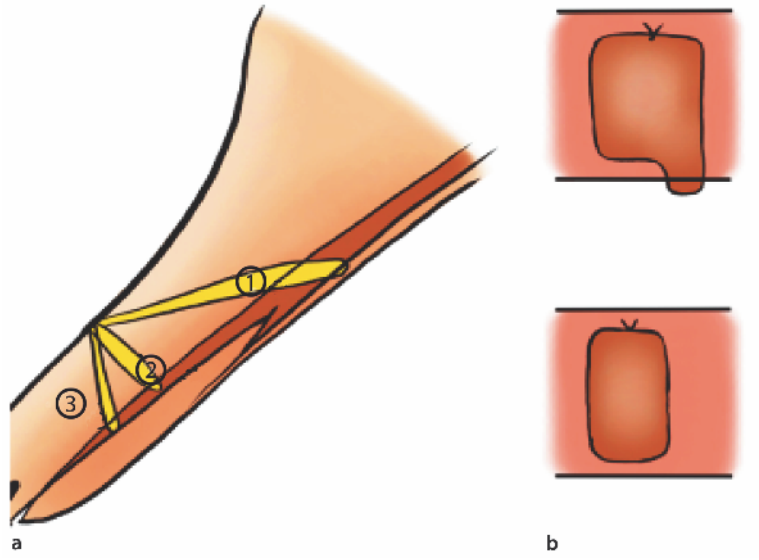

Fig. 60.2 **a** Eyelid crease level depends on the position of the buried sutures. *1* Suture at the levator aponeurosis to form a higher fold. *2* Suture at the same position of the tarsal plate. *3* Suture at the lower tarsal plate to form a lower fold. **b** Shape of buried suture. *a* Exposing part of the suture at the side of the conjunctiva. *b* Buried suture within palpebral tissue

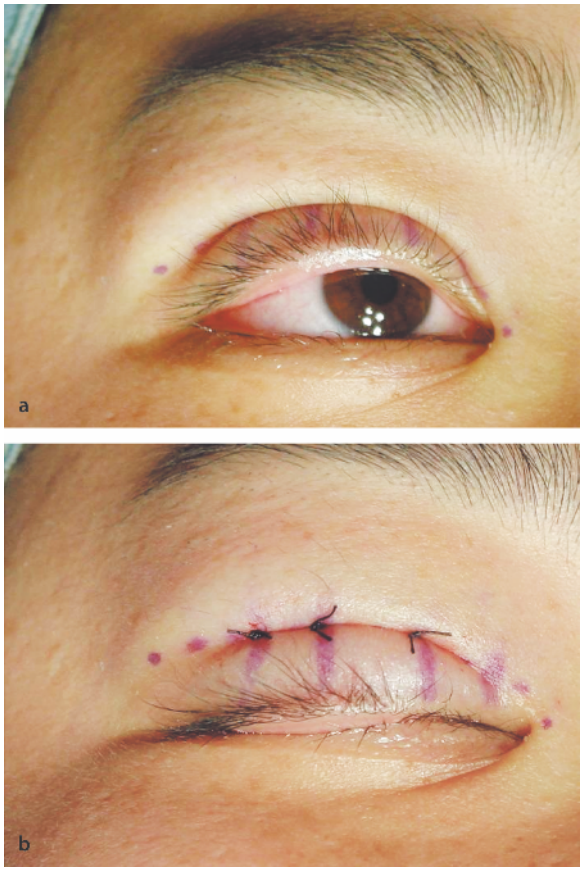

Fig. 60.3 Double-eyelid operation by the non-incision and non-buried-suture method. **a** Preoperatively. **b** Postoperatively

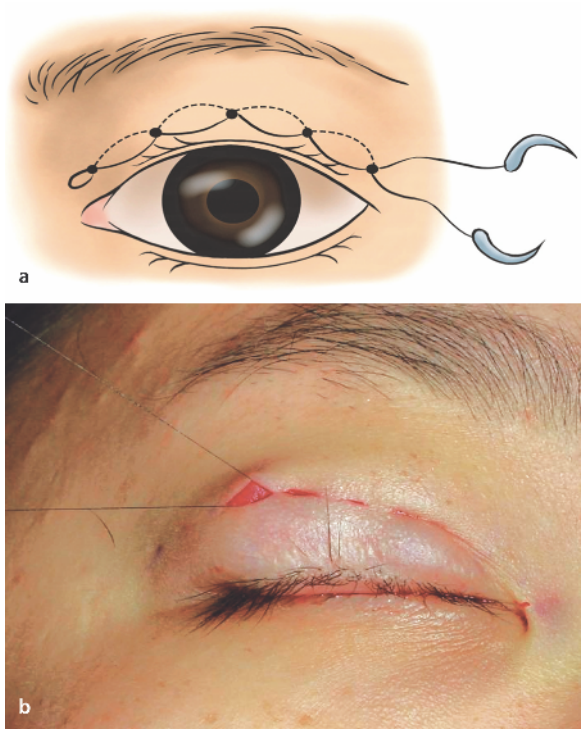

Fig. 60.4 Maruo's buried-suture method. **a** The *solid line* is the tarsal plate and the *dotted line* is the ligature of 5.0 or 6.0 catgut, silk, or nylon. **b** Final closure

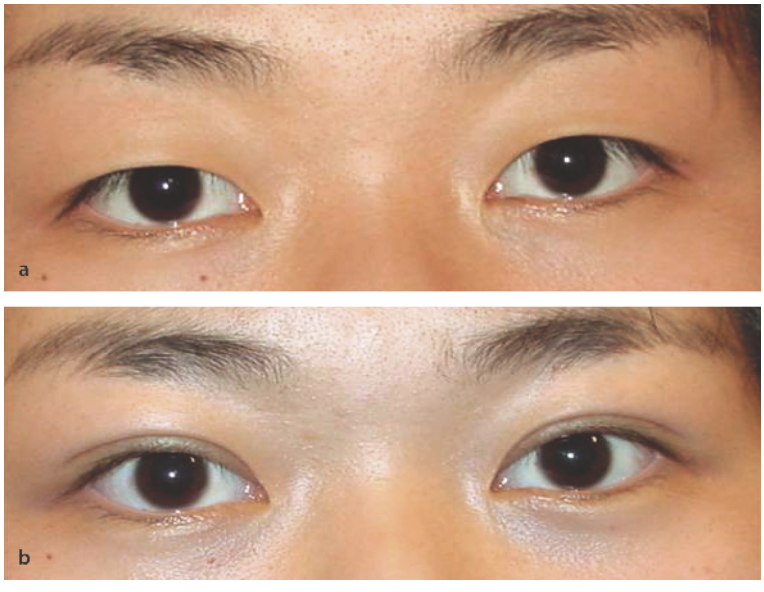

Fig. 60.5 Maruo's technique. **a** Preoperatively. **b** Postoperatively

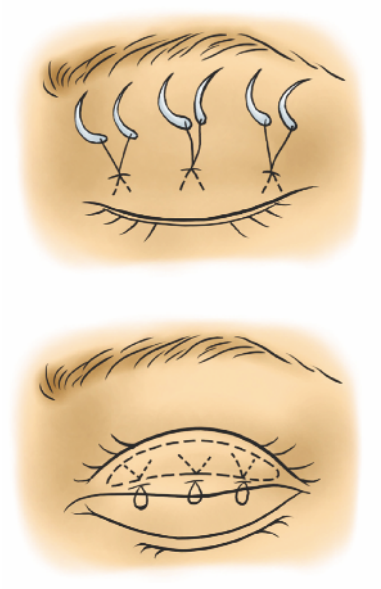

Fig 60.6 Harada and Kawamoto's method

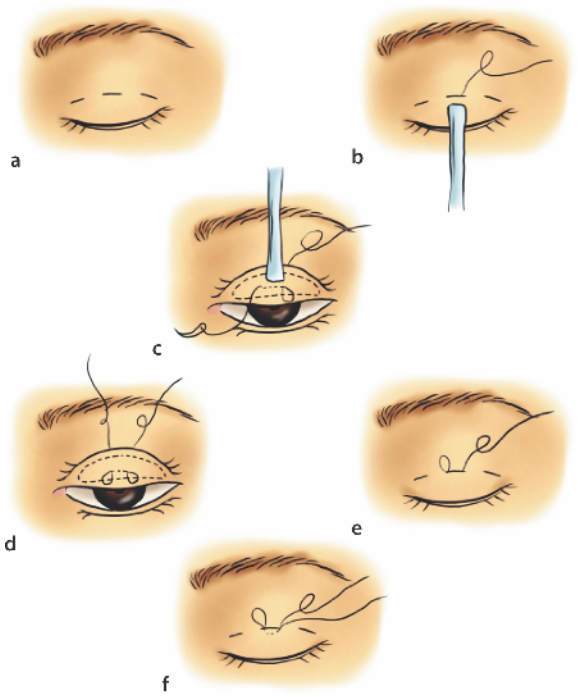

Fig. 60.7 Umezawa's method

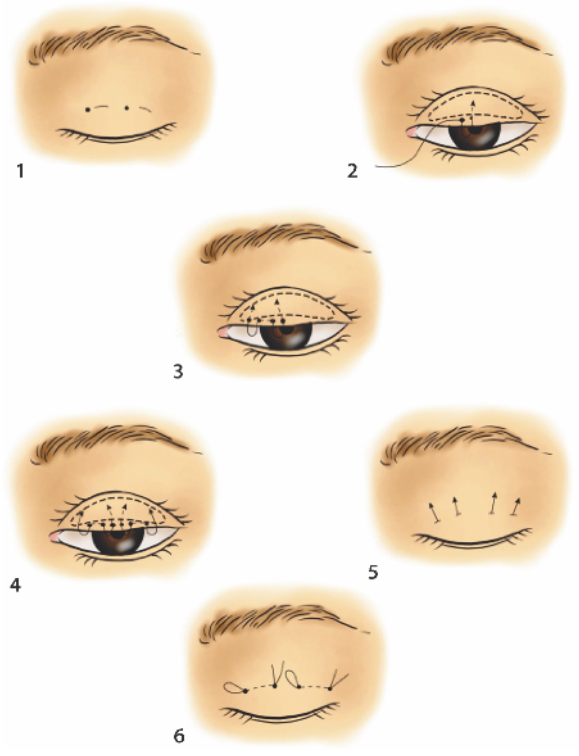

Fig. 60.8 Muto's technique

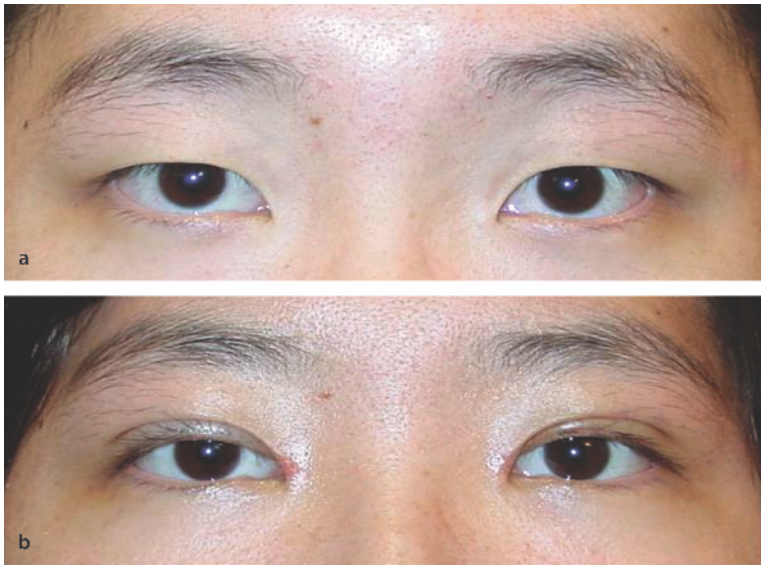

Fig. 60.9 Muto's method. **a** Preoperatively. **b** Postoperatively

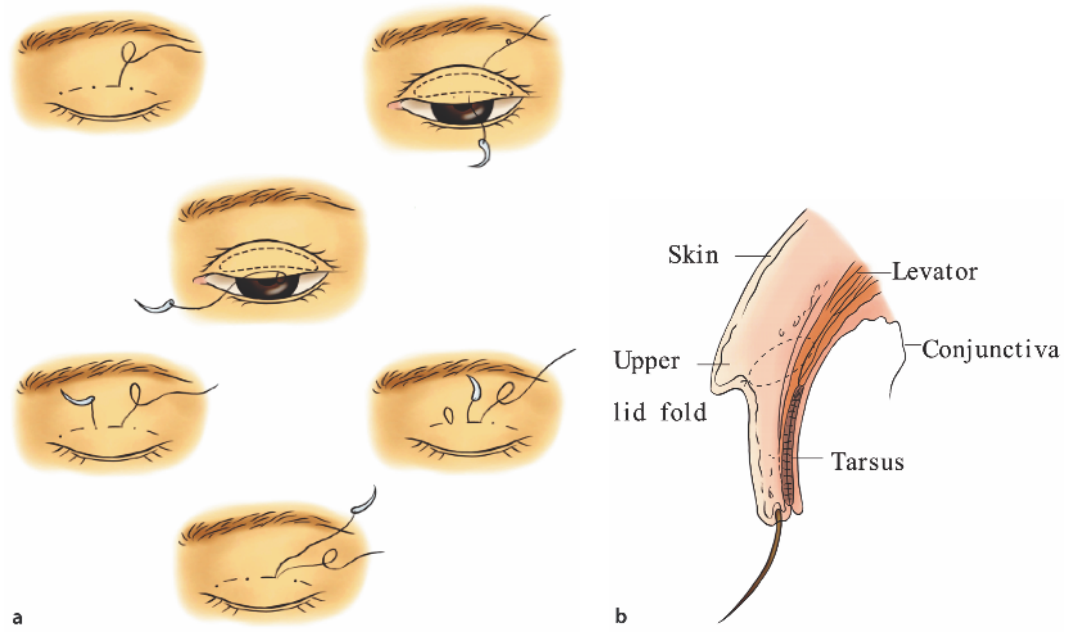

Fig. 60.10 Boo-Chai's method. **a** On the side of conjunctiva, pass through the upper end of tarsal plate. **b** *Dotted line* is buried position of buried suture.

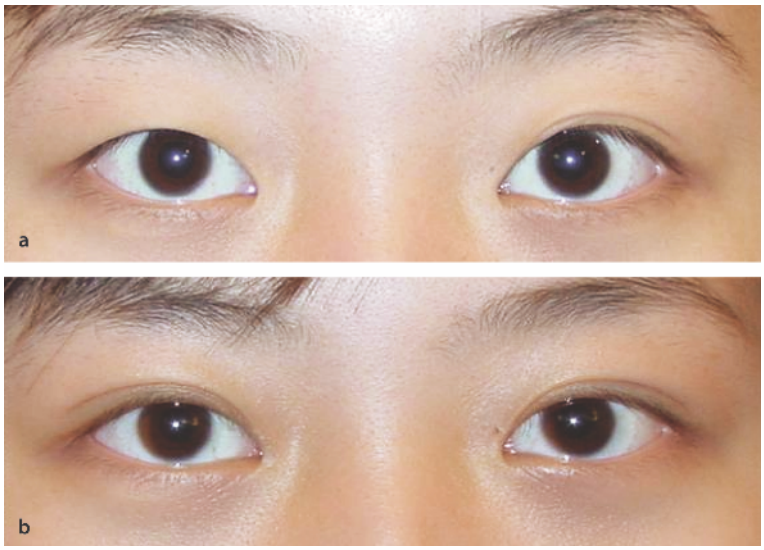

Fig. 60.11 Boo-Chai's method. **a** Preoperatively. **b** Postoperatively

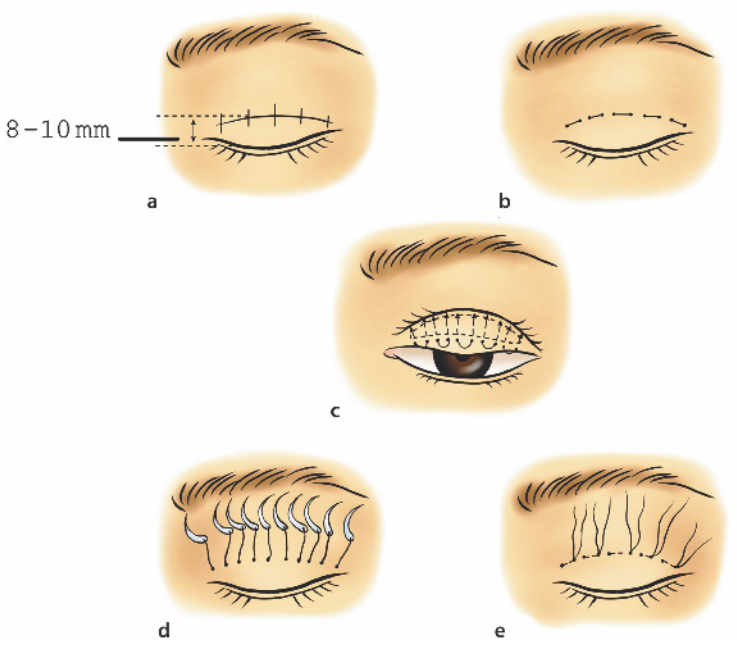

Fig. 60.12 Buried-suture method using more buried sutures. **a** Mark and sign of double eyelid. **b** Distance of thread in and out: 3, 3, 4, 2, and 3 mm. **c** A 6-0 nylon suture passing through just above the level of the tarsal plate on the side of the conjunctiva but put under the conjunctiva, non-exposed thread. **d** Pull-out on the surface of marked skin. **e** Sutures tied

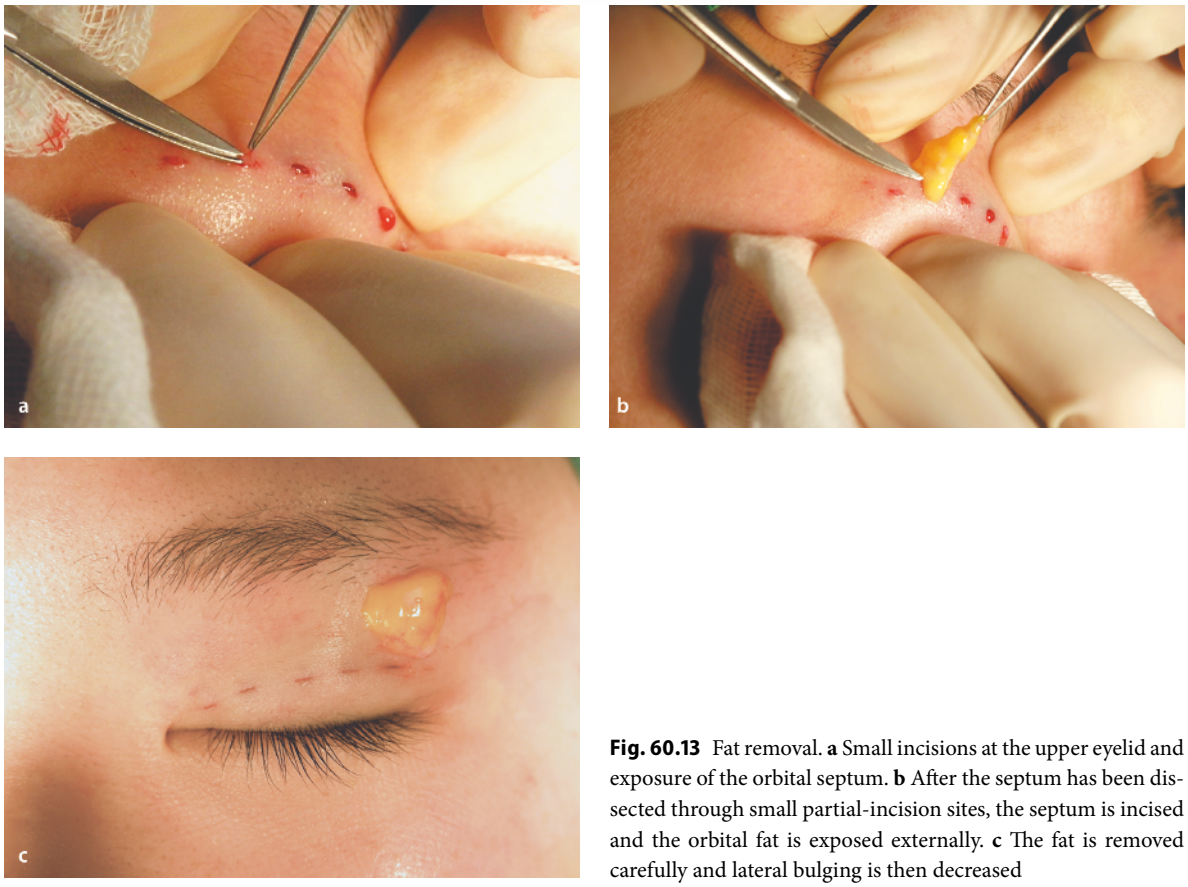

Fig. 60.13 Fat removal. **a** Small incisions at the upper eyelid and exposure of the orbital septum. **b** After the septum has been dissected through small partial-incision sites, the septum is incised and the orbital fat is exposed externally. **c** The fat is removed carefully and lateral bulging is then decreased

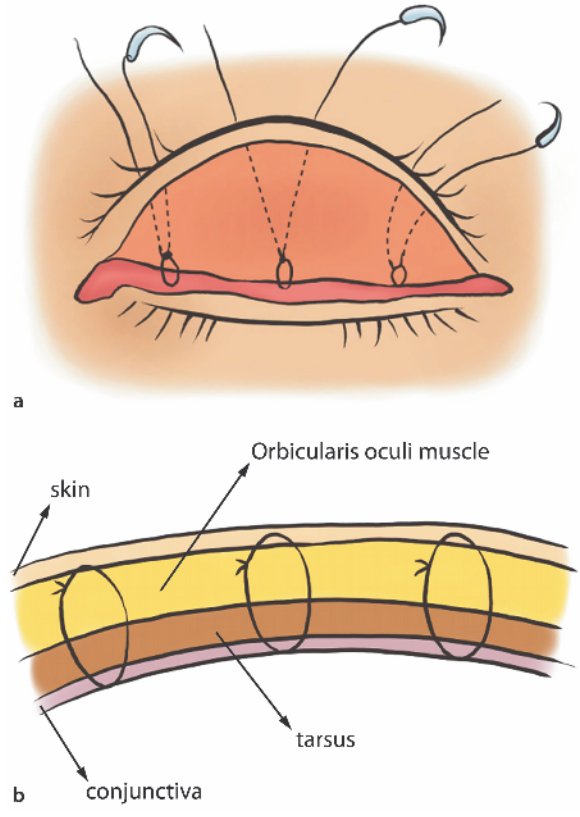

Fig. 60.14 **a** Double eyelids are made with full thickness tarsus–dermis buried sutures. **b** Transverse section of full-thickness tarsus–dermis buried suture on the upper eyelid

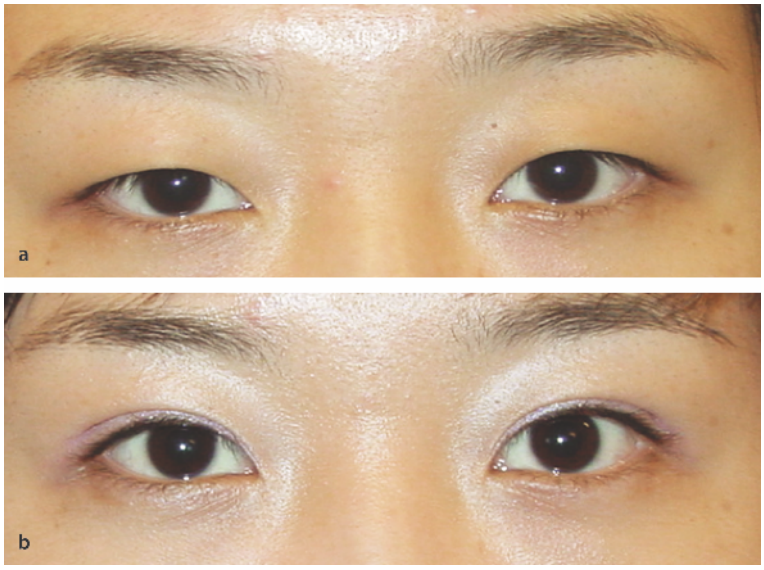

Fig. 60.15 Double eyelids. **a** Preoperatively. **b** Postoperatively

60.4 Incision Method

The incision method can be performed in patients with too much fat since the fat can be removed. There is a longer recovery time but minimal complications.

Indications for the incision method include:

1. Dermatochalasia alone
2. Dermatochalasia with fatty prolapse
3. Dermatochalasia with ptosis
4. Asymmetric eyelids
5. For making prominent double eyelids
6. In the case of scar in upper eyelids
7. Reoperation cases (in complication cases of the non-incision method)

The incision methods are classified as "buried or non-buried" suture and "fixation level" (Figs. 60.16, 60.17). Park's technique involves buried sutures at three to five points and fixation to the superior tarsal plate and aponeurosis (Fig. 60.18). The results are excellent (Figs. 60.19–60.21).

60.5 Complications

In the immediate postoperative period, the complications that may be encountered include corneal exposure or dryness, chemosis, hemorrhage and hematoma with ecchymosis and anterior hematoma or posterior hematoma and retrobular hemorrhage, cellulitis and abscess (Fig. 60.22), inadvertent globe penetration, or eyelid slough. In the intermediate postoperative period, the complications may include orbicularis abnormality with hypertrophy or adhesions, lacrimal system dysfunction, dry eye, medial canthal deformity, diplopia and extraocular muscle movement disorder, and exposure keratinopathy from incomplete eyelid closure. In the late postoperative period, the possible complications include ptosis, ectropion, sunken eyelid resulting from aggressive fat resection, asymmetries (Fig. 60.23), inclusion cyst or suture tunnels, lagophthalmos, hypertrophic scarring, disappearance of double eyelid or shallowness (Fig. 60.24), and high fold and low fold.

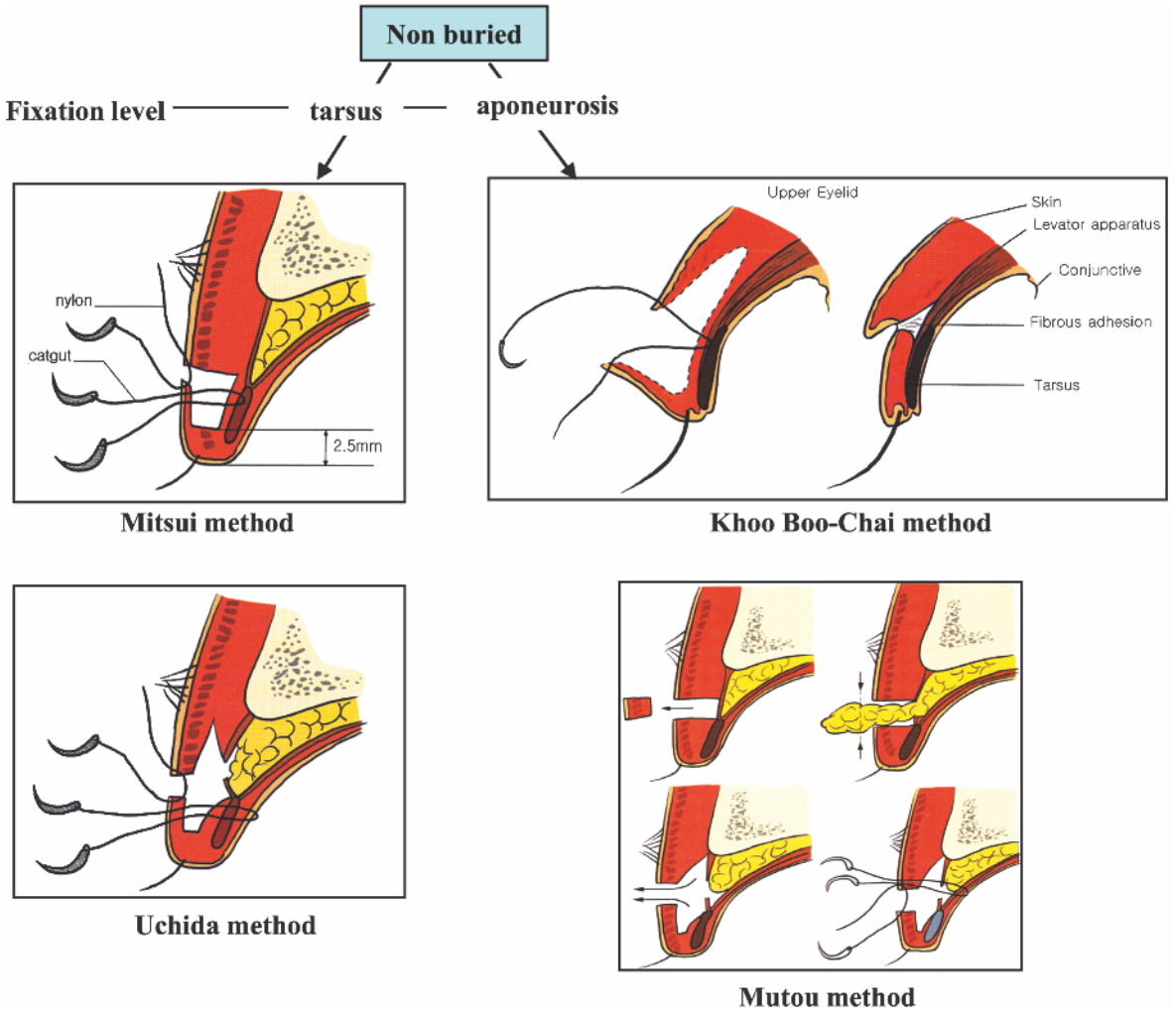

Fig. 60.16 Non-buried method

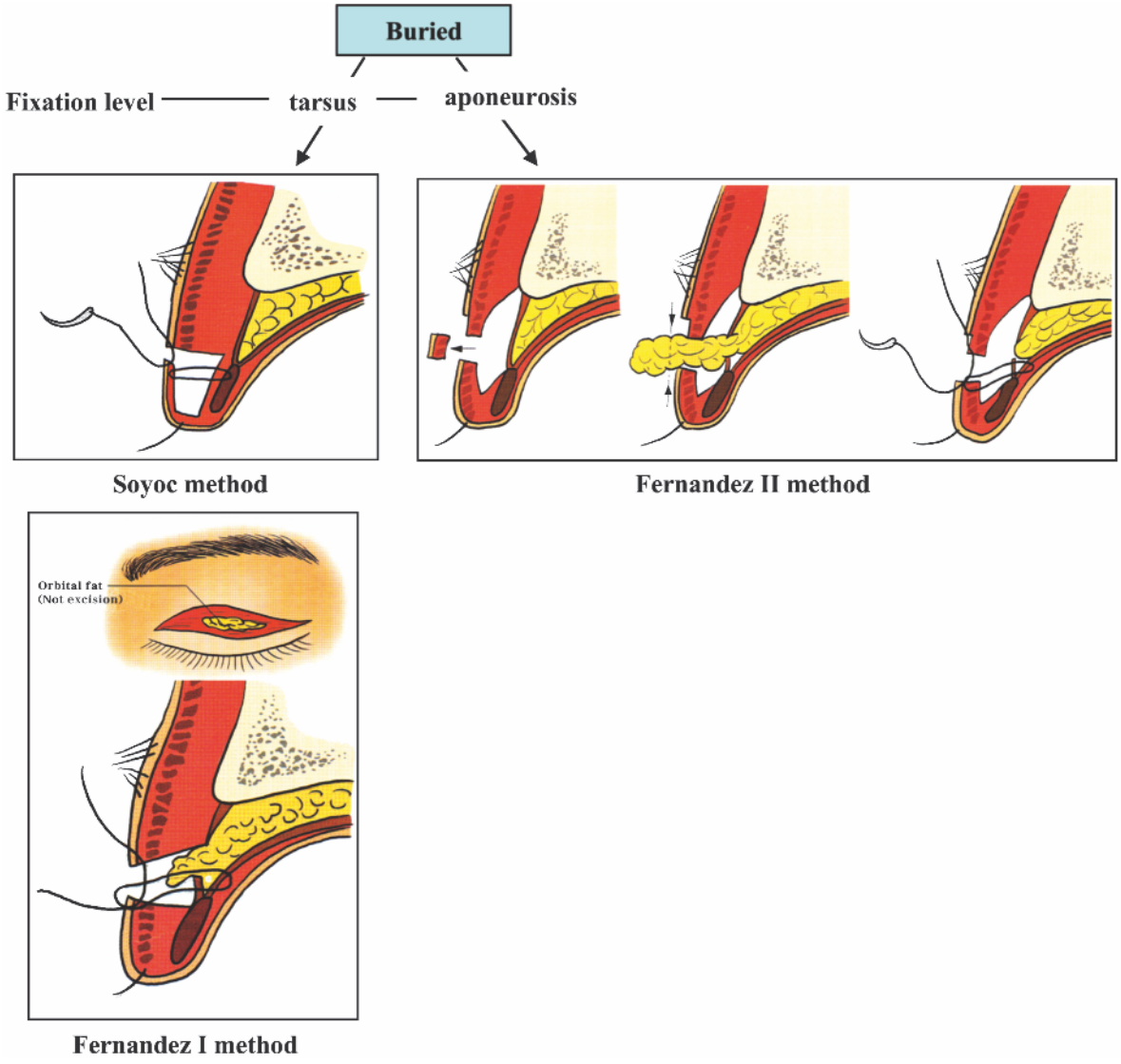

Fig. 60.17 Buried method

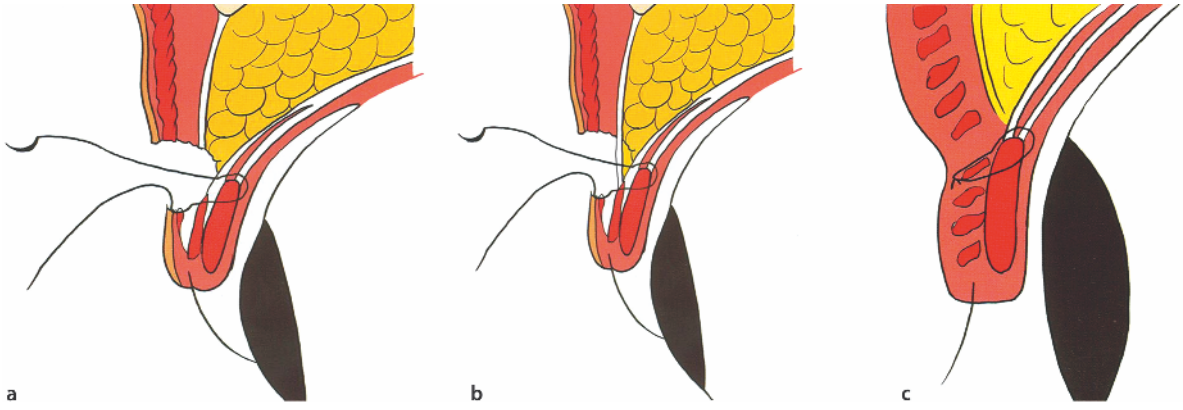

Fig. 60.18 **a** Septum opened. **b** Sometimes the septum does not open. **c** Completed suturing. **d,e** *see next page*

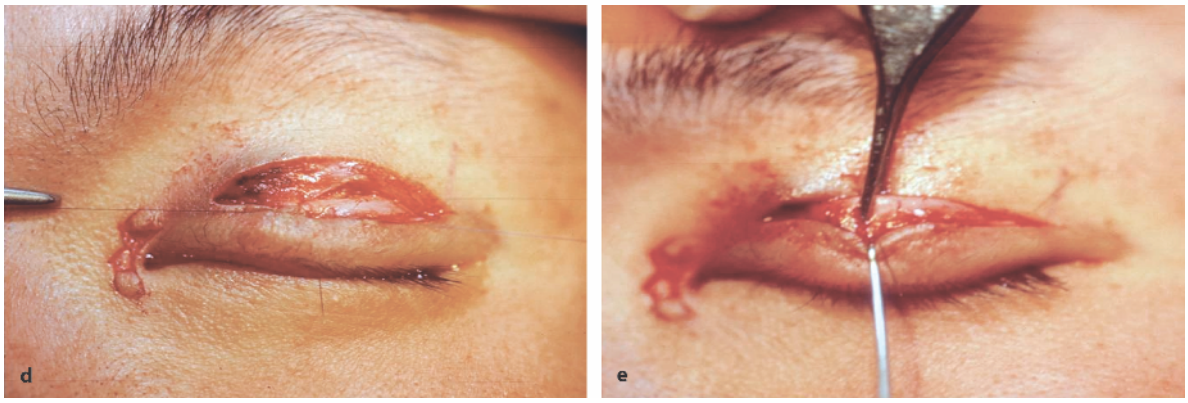

Fig. 60.18 *(Continued)* **d**,**e** Non-absorbable suture at three to five points

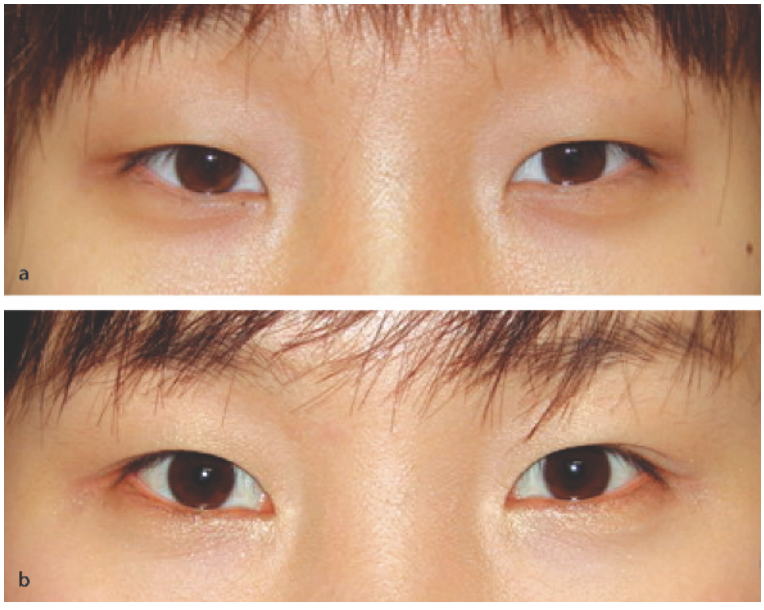

Fig. 60.19 Incision method. **a** Preoperatively. **b** Postoperatively

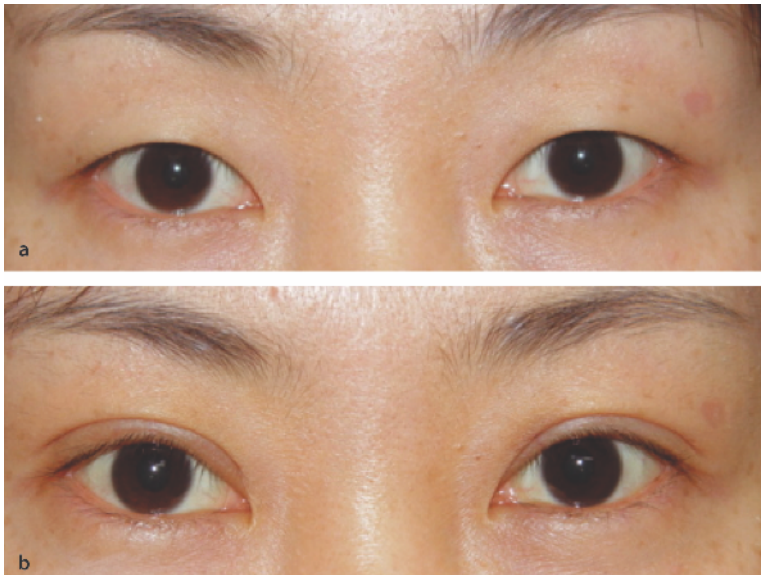

Fig. 60.20 Incision method. **a** Preoperatively. **b** Postoperatively

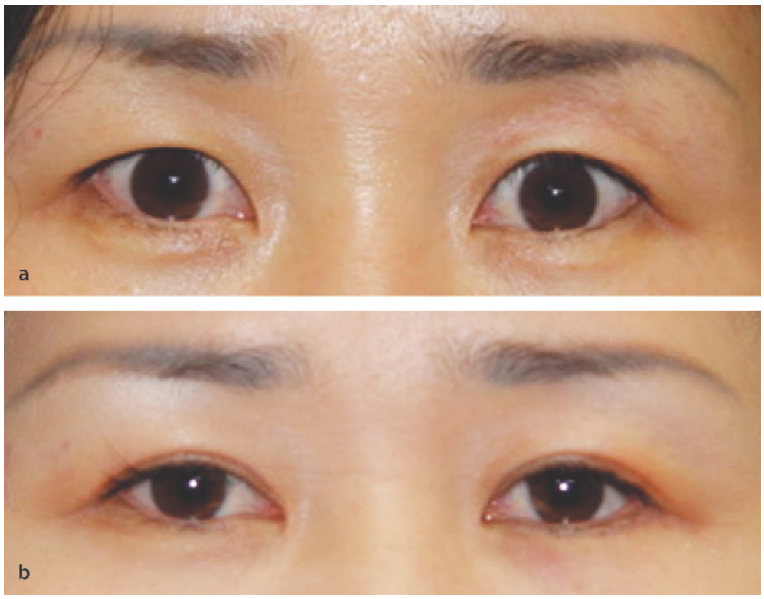

Fig. 60.21 Incision method. **a** Preoperatively. **b** Postoperatively

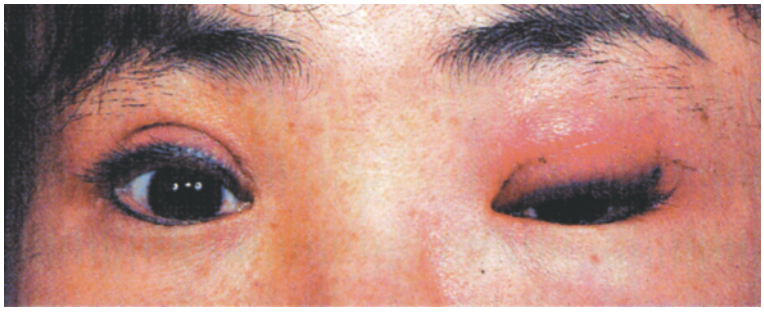

Fig. 60.22 Abscess

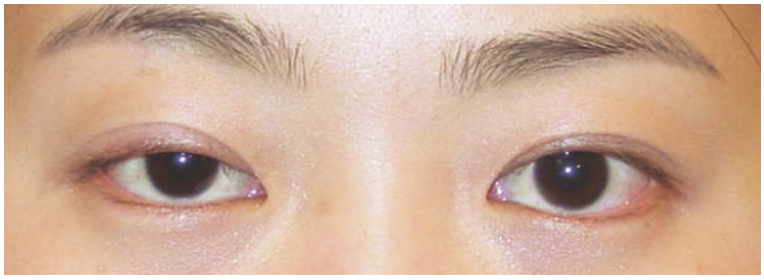

Fig. 60.23 Asymmetry

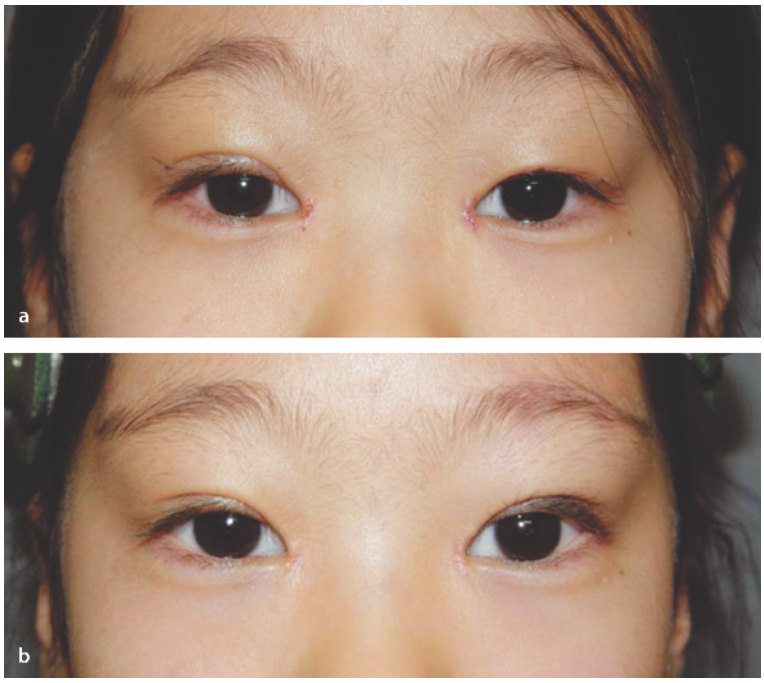

Fig. 60.24 **a** Disappearance of the fold line on the left side. **b** After revision

60.6 Postoperative Regimen

Ice-pack compresses are used for 1–2 days and bed rest is for 24 h. No reading, viewing of television, computer use, or computer-gaming is allowed. Wound and facial hygiene, dressing, and application of antibiotic ointment for 7 days are undertaken. Hot spas or swimming, strenuous activities, or workout for at least 1 week should be avoided as should aspirin or anything containing ibuprofen. Steroids are not routinely prescribed.