6 Surgery for Retraction Pockets

A retraction pocket may be an *attic retraction pocket* or a *posterior retraction pocket*.

Attic retraction pockets are mostly superficial and can be excised easily by removing the lateral attic wall. The attic defect thus created is repaired by the cartilage.

Posterior retraction pockets are mostly deeper and may reach the sinus tympani. These pockets are difficult to exteriorize and excise intact. Most of the time, these pockets are associated with erosion and destruction of the lenticular process of the incus and stapes superstructure. The ossicular defect thus created is repaired by ossiculoplasty, mostly using cartilage. After exteriorization and excision of the posterior retraction pocket, the posterior part of the tympanic membrane is supported by the cartilage to prevent future retraction pockets. The cartilage used is with perichondrium and is mostly harvested from the tragus.

A series of photographs showing exteriorization and removal of posterior retraction pockets, followed by reconstruction, are given in **Figs. 6.1–6.39**.

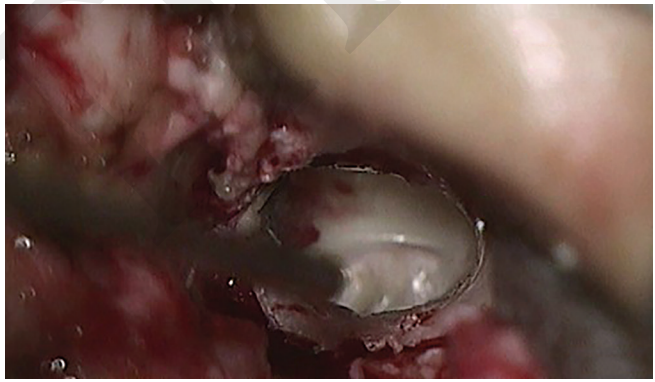

Fig. 6.1 Posterior retraction pocket with the posterior part of the tympanic membrane adherent to the promontory.

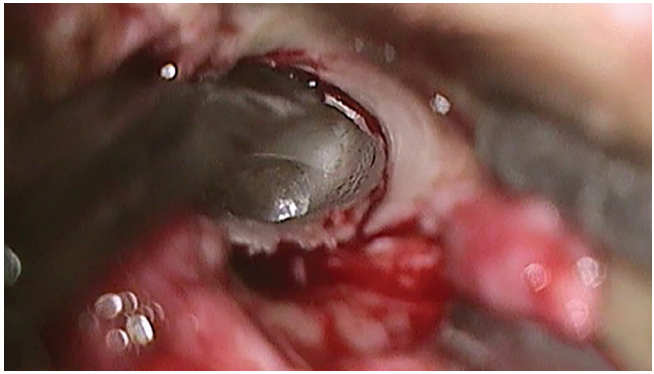

Fig. 6.2 A 360-degree circumferential incision is given to the meatal wall skin.

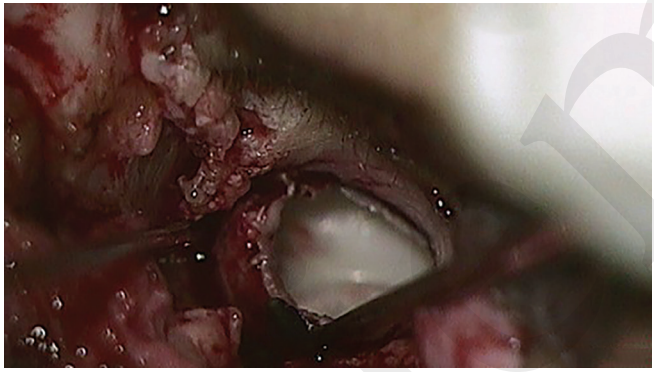

Fig. 6.3 The meatal wall skin is elevated circumferentially.

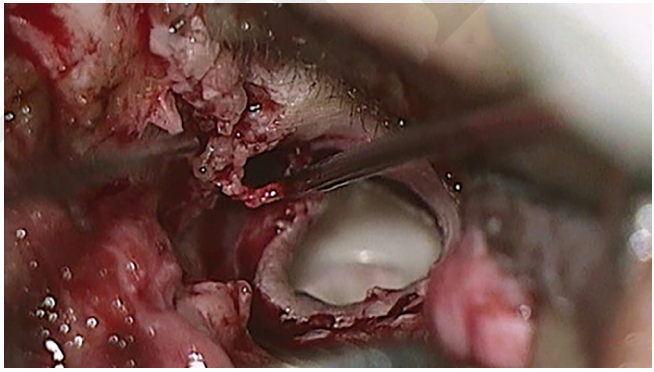

Fig. 6.4 Elevation of the superior meatal wall skin is continued till the neck of the malleus.

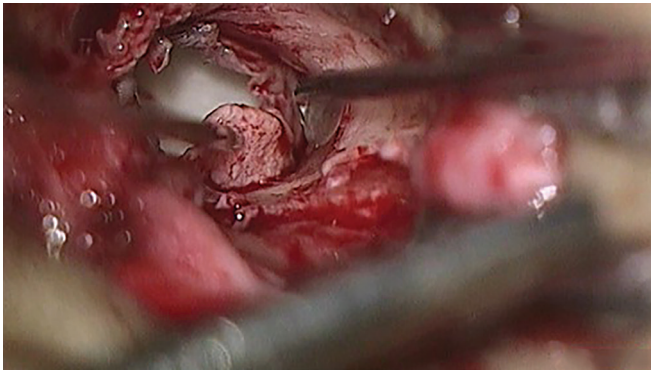

Fig. 6.5 The inferior meatal wall skin is elevated by a circular knife.

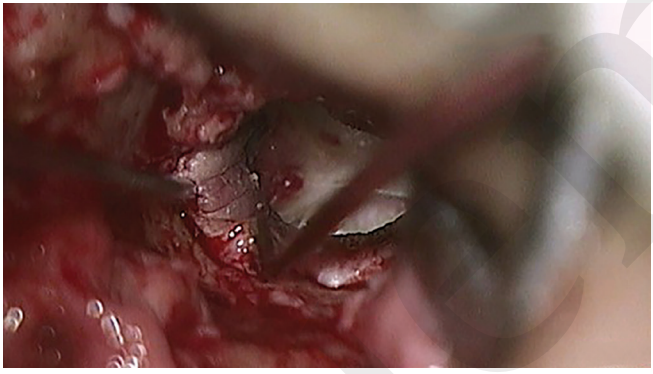

Fig. 6.6 The posterior meatal wall skin is elevated.

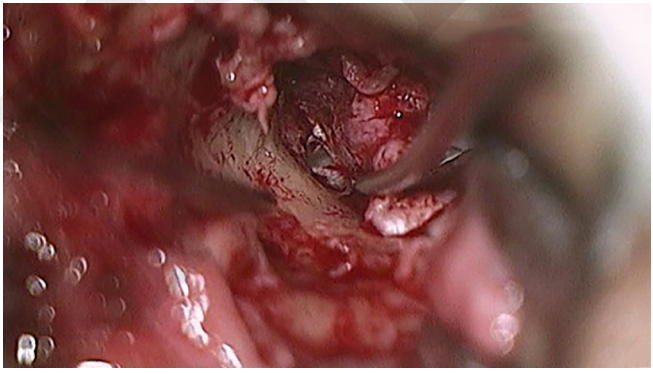

Fig. 6.7 The posterior meatal wall skin is elevated till the annulus.

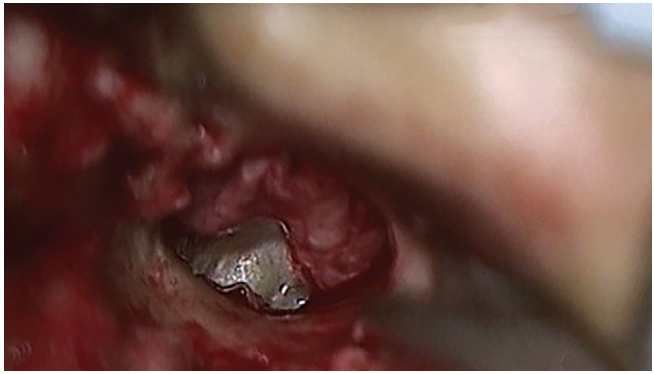

Fig. 6.8 The posterior meatal skin is incised and separated from the annulus.

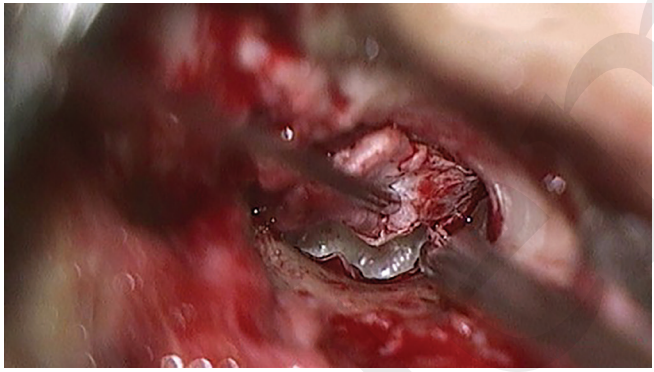

Fig. 6.9 The posterior meatal wall skin is incised superiorly and inferiorly. It is taken out as a free graft.

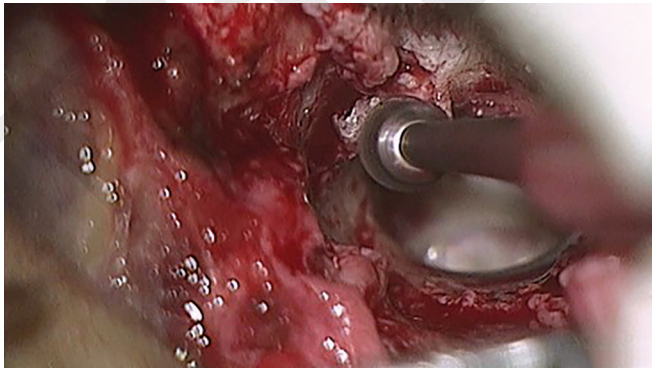

Fig. 6.10 Bulging superior bony meatal wall is drilled by a cutting burr (canalplasty).

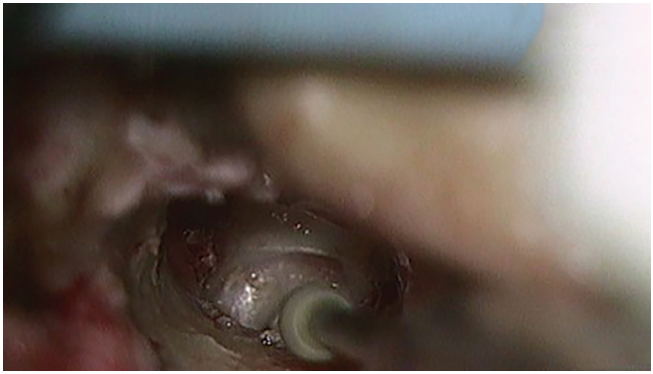

Fig. 6.11 Posterior bony meatal wall is drilled by a diamond burr to exteriorize the retraction pocket.

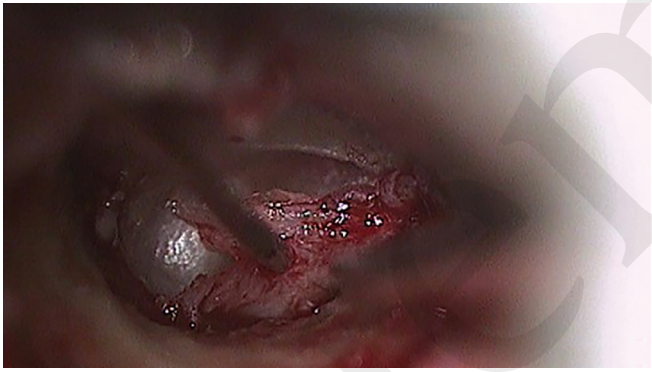

Fig. 6.12 Posteroinferior tympanomeatal flap is elevated.

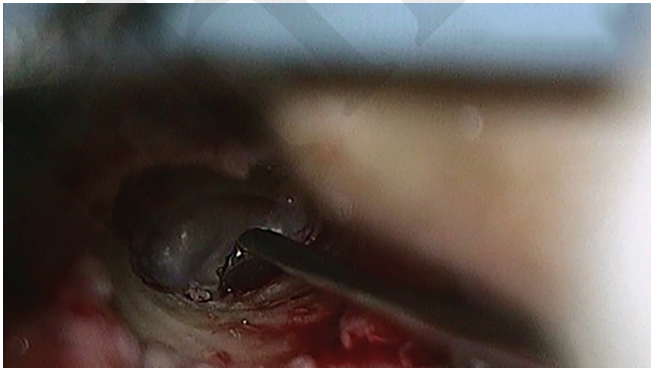

Fig. 6.13 Posterior annulus just inferior to the retraction pocket is lifted from the sulcus.

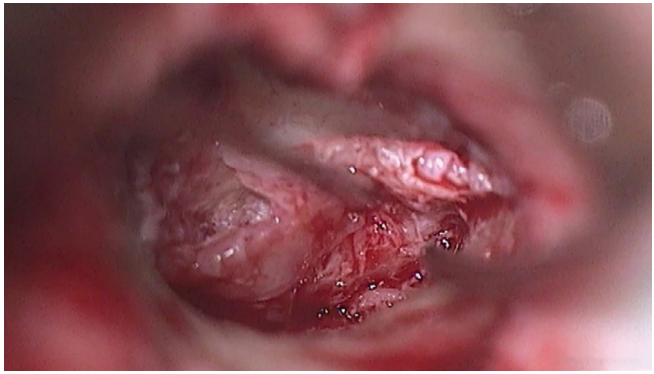

Fig. 6.14 The annulus is lifted from the sulcus, and an attempt is made to enter the middle ear inferior to the retraction pocket.

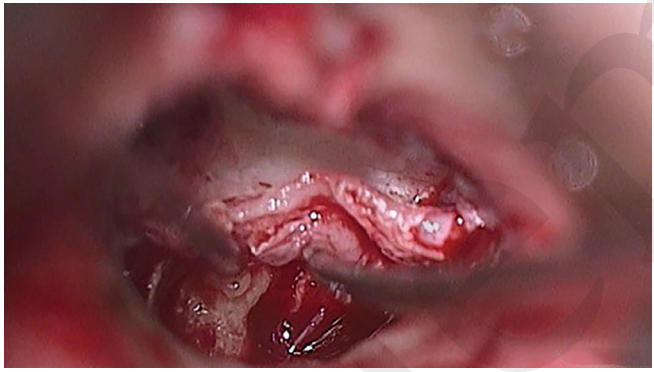

Fig. 6.15 The inferior and posterior annulus is elevated from the sulcus, and the middle ear is entered.

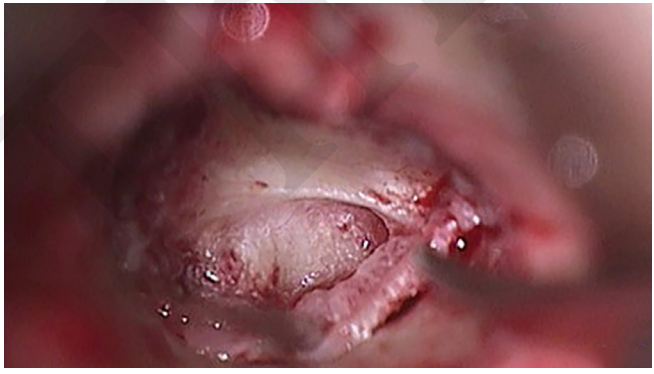

Fig. 6.16 Elevation is continued further, keeping the pocket intact.

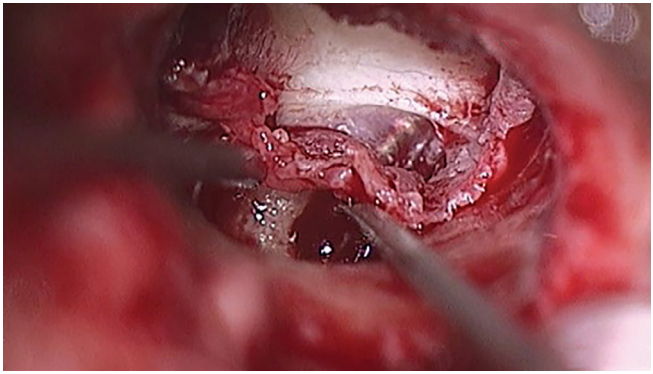

Fig. 6.17 Elevation is continued superiorly. The retraction pocket is elevated from the facial recess and dissected from the promontory using a ball probe. The ossicular chain is intact.

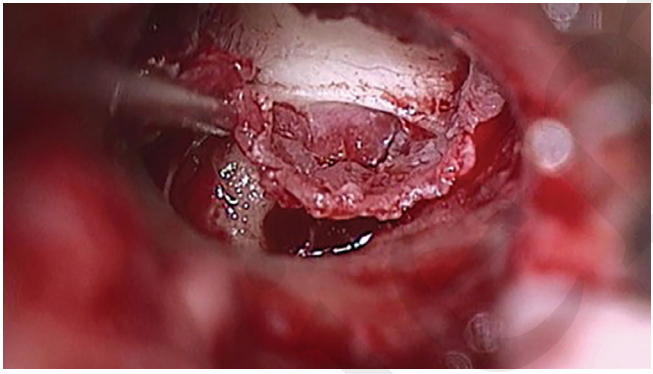

Fig. 6.18 The complete intact retraction pocket is separated from the promontory.

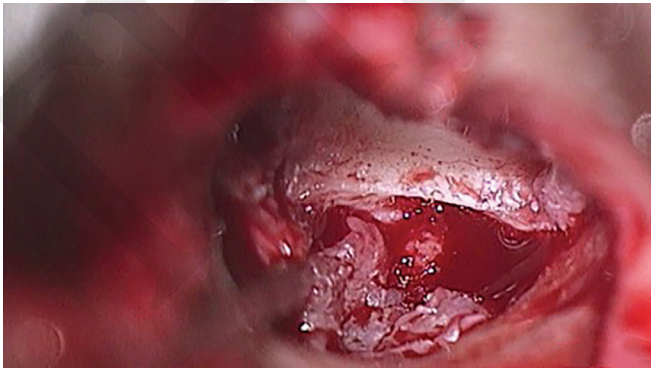

Fig. 6.19 The retraction pocket is completely separated from the promontory. It is to be excised and taken out, as that part of the tympanic membrane is unhealthy.

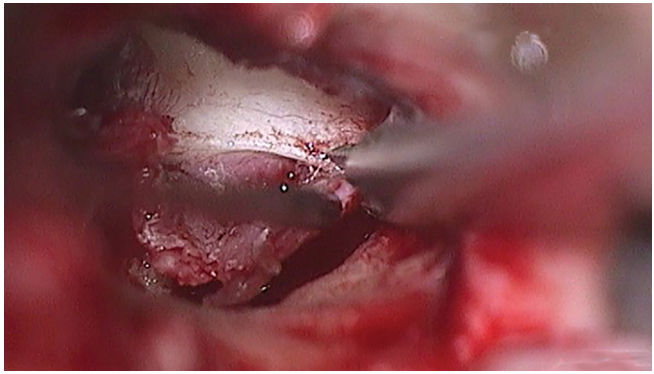

Fig. 6.20 The retraction pocket is completely separated from the promontory. It is excised and taken out, as that part of the tympanic membrane is unhealthy.

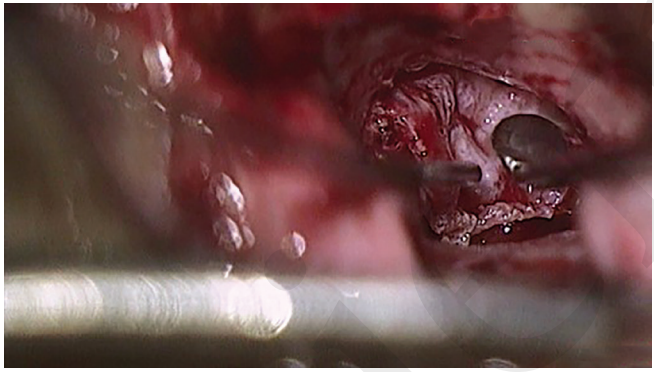

Fig. 6.21 Anterior tympanomeatal flap is elevated to reach the anterior annulus, which is lifted from the sulcus for the anterior placement of the graft, under the anterior tympanomeatal flap.

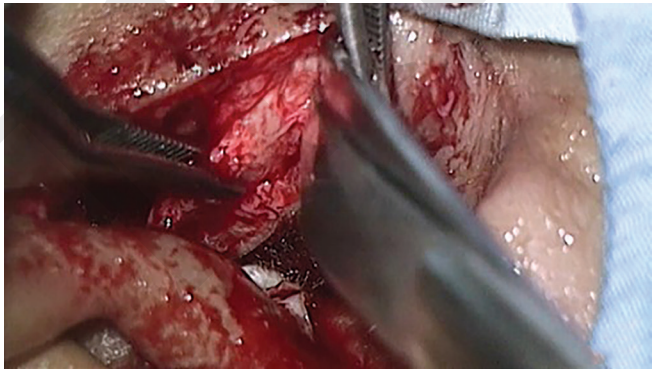

Fig. 6.22 Tragal cartilage is removed through the same endaural incision.

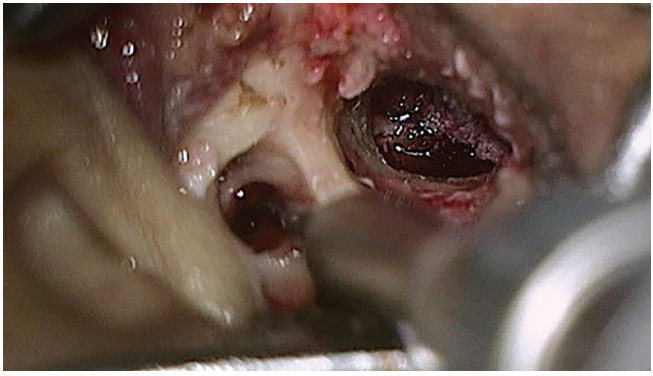

Fig. 6.23 The mastoid antrum is opened and is found to be healthy. The water test is positive.

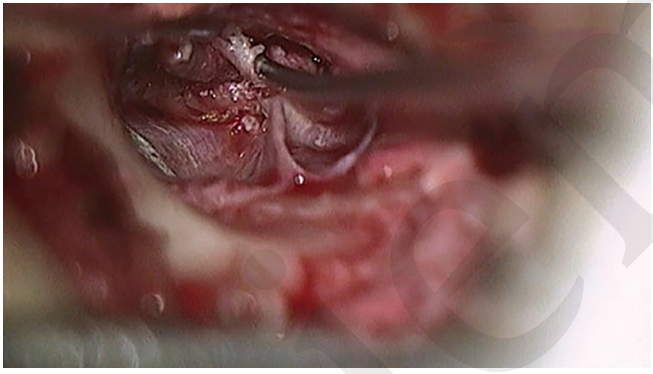

Fig. 6.24 Underlay graft is placed medial to the handle of the malleus.

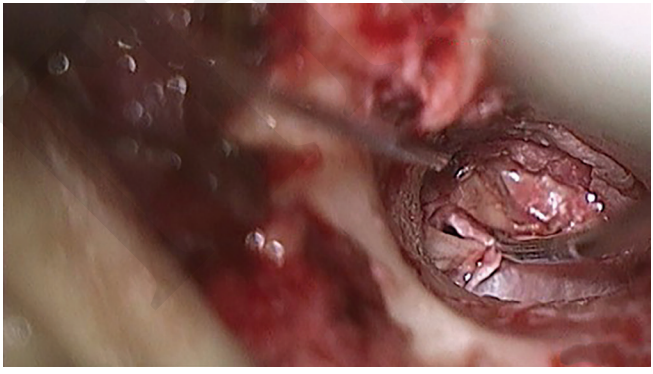

Fig. 6.25 Graft is placed medial to the handle of the malleus, lying lateral to the long process of the incus.

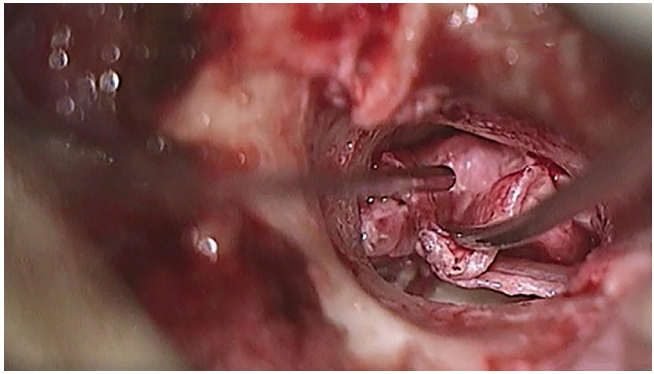

Fig. 6.26 Underlay graft is placed, medial to the handle of the malleus, pulled anteriorly under the anterior tympanomeatal flap.

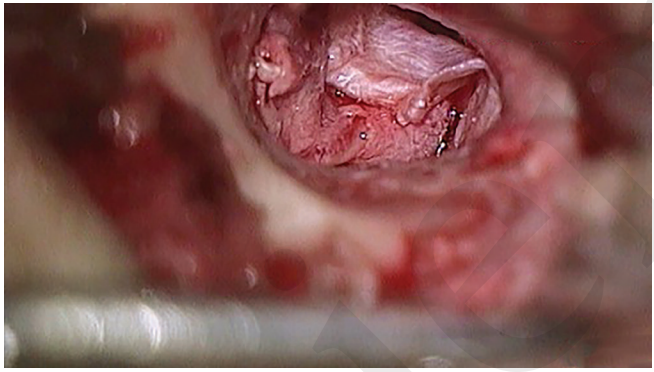

Fig. 6.27 Anteriorly, the graft is placed under the anterior tympanomeatal flap supported by the anterior bony meatal wall.

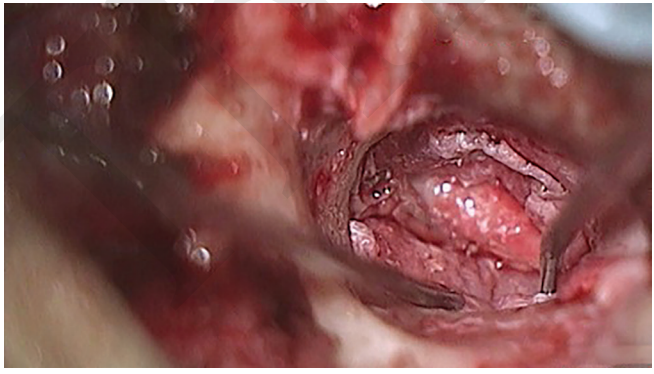

Fig. 6.28 Anterior tympanomeatal flap is reposited back into its original position.

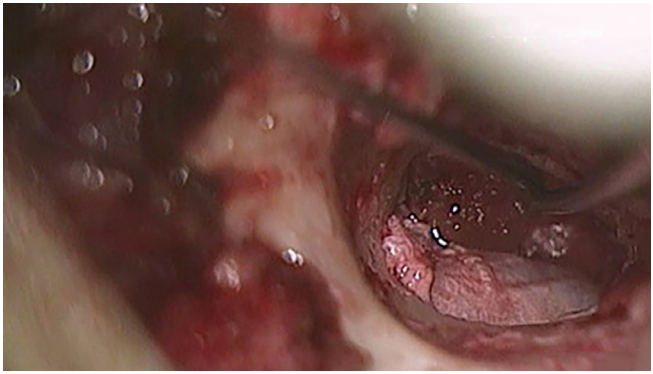

Fig. 6.29 Gelfoam is placed anteriorly over the tympanic membrane.

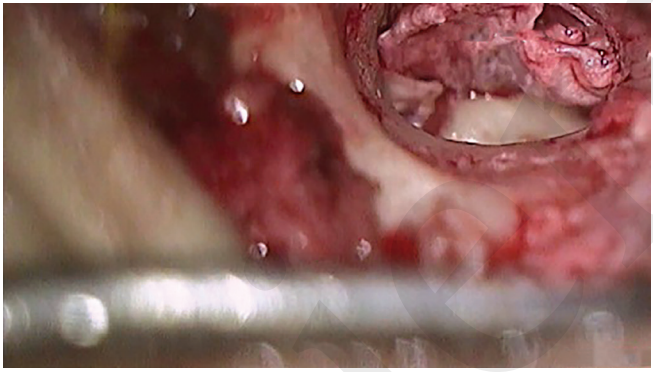

Fig. 6.30 Posteriorly, the graft is lifted up for placement of the cartilage medial to the graft to support the graft in the posterior part of the tympanic cavity, to prevent the graft from getting retracted and to prevent a future retraction pocket.

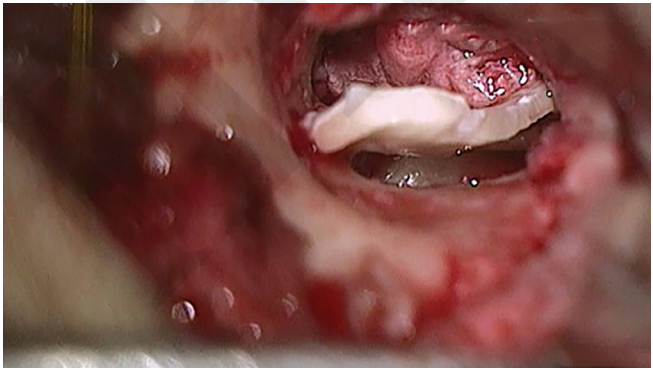

Fig. 6.31 Cartilage is placed medial to the graft. The lower end of the triangular piece of cartilage is rested inferiorly over the groove made at the level of the inferior sulcus.

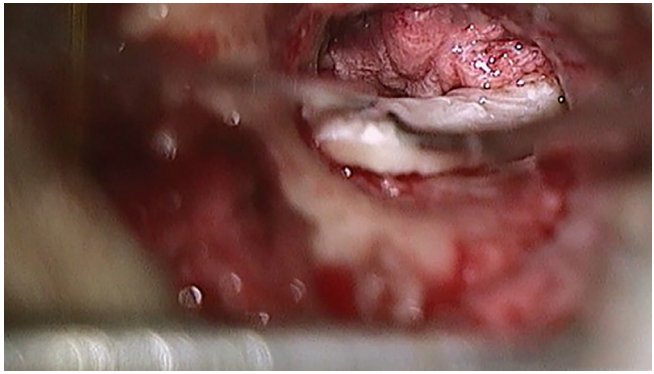

Fig. 6.32 Cartilage is placed horizontally in the middle ear, medial to the graft, lateral to the incus long process to prevent the graft from getting retracted and to prevent a future retraction pocket.

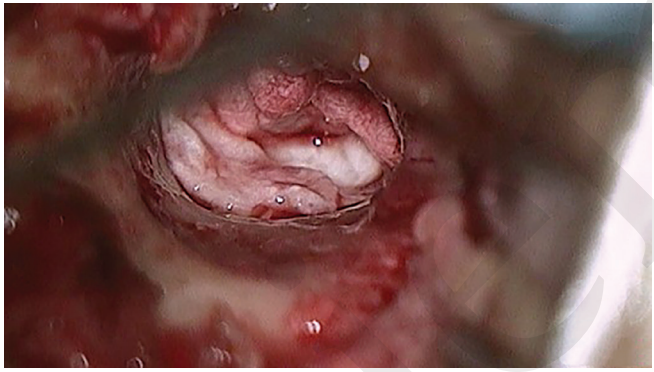

Fig. 6.33 Cartilage is placed horizontally in the posterior part of the tympanic cavity lateral to the incus supporting fascia graft, and it is covered posterosuperiorly by a small piece of perichondrium.

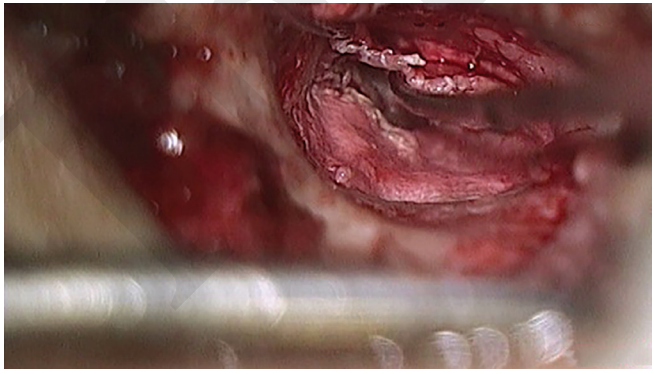

Fig. 6.34 Fascia graft is reposited back over the posterior meatal wall.

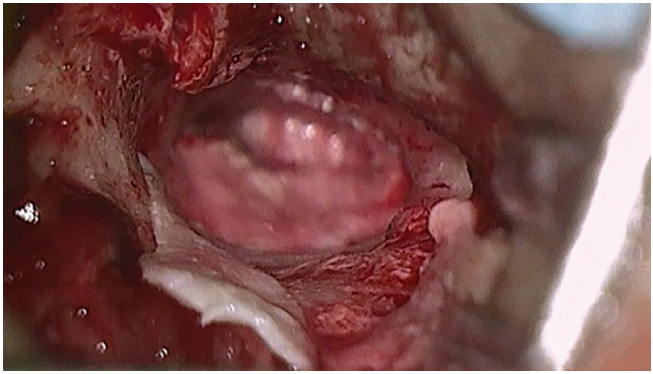

Fig. 6.35 Free posterior meatal wall skin, which was taken out earlier, is placed to be reposited back over the posterior bony meatal wall.

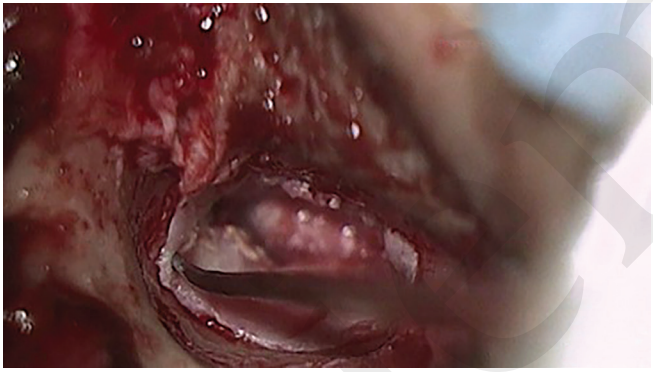

Fig. 6.36 The meatal skin is reposited back over the posterior bony meatal wall.

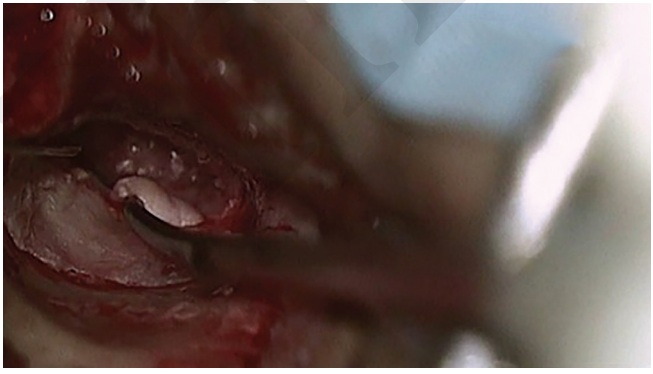

Fig. 6.37 The graft is covered by a piece of meatal skin for fast epithelization.

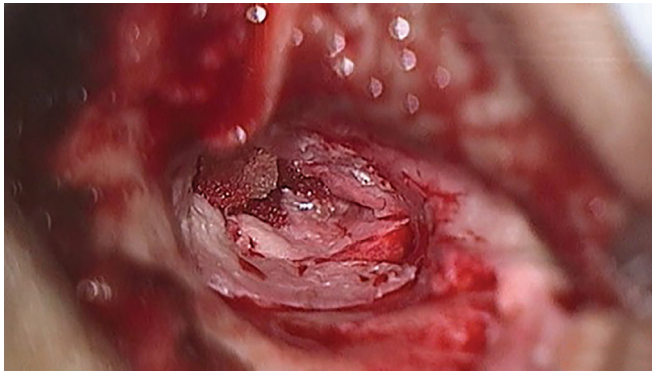

Fig. 6.38 Gelfoam is placed in the external auditory meatus.

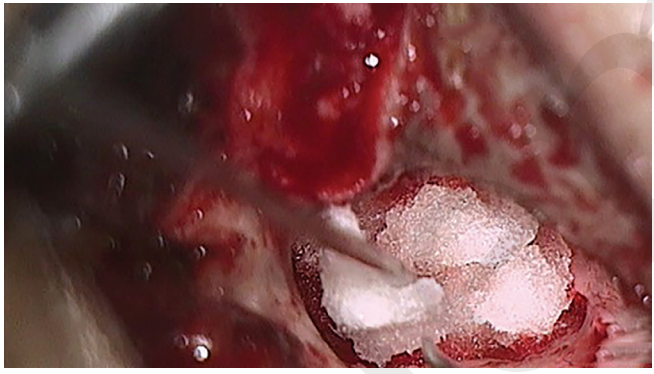

Fig. 6.39 The external auditory canal is completely packed with Gelfoam, and the incision is closed.