Further Experience with the Interposition Operation in Otosclerosis

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The results in 92 cases of stapedectomy with interposition and polyethylene strut are presented:
68 percent closure of the air bone gap (less than 10 db)
23 percent satisfactory result, but no closure of air bone gap
8 percent failure
1 percent deaf ear (labyrinthitis)

The failures are analysed. In two cases a re-closure of the oval window was found underneath the graft. To reduce the chance of re-closure it is advised to remove the footplate completely and to invaginate the graft well into the oval window by a rather long strut.

Some technical details of stapedectomy are discussed which may reduce the traumatic effect on the labyrinth.

The vein graft according to Shea is often found to be too small to warrant a perfect seal of the oval window. Therefore, in the last 34 cases a perichondrial graft from the tragus was used (Goodhill). This procedure is preferable because the flap can be as large as necessary and because the technique is simple and time-saving.

The author modified the original technique of Goodhill:
After a longitudinal incision of the skin on the back side of the tragus the skin and subcutis are severed from the perichondrium. A flap of appropriate size is cut out of the perichondrium and is lifted from the tragal cartilage.

The polyethylene strut may be cut in several forms to fit around the lenticular process or to enclose the long crus of the incus when the lenticular process is atrophied. When the incus is absent—in old fenestration cases—the strut may be broadened on the outer end to facilitate the contact of the strut with the tympanic membrane.