

Learning Objectives:

Tympanoplasty with canal wall reconstruction was performed using sliced cartilage, fascia, and inferior based musculoperiosteal flap in 46 patients with open mastoid cavities and hearing loss. All patients were followed for more than two years after the last operation. The mastoid skin was elevated and trimmed, and then the fascia and sliced auricular cartilage were transplanted to the mastoid side of the skin and covered using musculoperiosteal flap. The remaining space in the mastoid cavity was filled with bone chips (42 cases). In the cases involving a normal or shallow eardrum (24 cases, group A), ossicular reconstruction was performed at the same time. Among the cases involving an adhesive eardrum, two-staged surgery was planned in 11 cases (group B). The other 11 patients with adhesive eardrums were treated with one-stage ossiculoplasty where possible (group C). Hearing improvement was achieved in 75% (18/24 cases) of the cases in group A, 45% of the cases in group B (5/11 cases), and 18% of the cases in group C (2/11 cases) at 12 postoperative months. None of the patients developed recurrent discharge, cholesteatoma or granulation tissue, although one patient in group C (2%) suffered re-adhesion. The reconstructed tympanum and posterior canal wall appeared to be thick structures made of skin and sliced cartilage. The boot-shaped reconstructed canal was suited to staged ossiculoplasty because the shape-memory effect provided an adequate combination of stiffness and flexibility for the second stage. The structure remained relatively stable over the long term. This method has advantages for patients with adhesive eardrums that require secondary ossiculoplasty or an active middle ear implant.

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Practicality Analysis of JOS Staging System for Retraction Pocket Cholesteatoma: Japan Multicenter Study (2009–2011)

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Learning Objectives:

Objective: To analyze the practicality of staging criteria of acquired cholesteatoma (2010) for standardizing pathological condition in Japan.

Design: A multicenter, retrospective study.

Setting: Six academic tertiary referral centers.

Participants: A total of 446 patients that underwent surgery (for the first time) for acquired retraction pocket cholesteatoma between 2009 and 2010 at 6 institutions in Japan.

Intervention: Cases were managed by trans canal atticotomy (TCA, 42 cases), canal wall down and reconstruction (CWDR, 142 cases), canal wall down (CWD, 29 cases), or canal wall up technique (CWU, 233 cases).

Main Outcome Measures: The extent of cholesteatoma was surgically confirmed, and auditory outcomes and disease recurrence during 3 years after the last operation were assessed.

Results: The cholesteatoma affected the pars flaccida in 325 cases (73%), the pars tensa in 100 cases (22%), and both of these regions in 21 cases (5%). The frequency of postoperative air-bone gaps of < 20 dB was 70% in the pars flaccida group, 54% in the pars tensa group, and 43% in the combined group. These rates decreased as the cholesteatoma stage increased. The frequency of residual disease at the “second look” (10%) peaked at 12 postoperative months, whereas it peaked at 24–36 postoperative months after single-stage procedures (4%). Recurrent sac formation exhibited a similar frequency (4%) from 6 months to 36 months. The frequencies of all types of recurrence increased with the disease stage.

Conclusion: Disease stage was found to be related to hearing outcomes and the recurrence rate. This simple staging system may be particularly useful for standardizing the reporting of acquired cholesteatoma and for adjusting for the severity of the condition during outcome evaluations. It might also provide information that is useful for counseling patients.

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Canal wall down tympanoplasty with soft posterior meatal wall reconstruction in cases of recurrent cholesteatoma

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Learning Objectives:

Introduction: Prevention of postoperative recurrent cholesteatoma is one of the important goals in the management of cholesteatoma. Surgery for recurrent cholesteatoma could be rather challenging because of potential tendency towards recurrence. Canal wall down tympanoplasty can be a good surgical option with low rate of recurrence, and soft posterior meatal wall reconstruction has a feature of less formation of a narrow-neck retraction pocket after surgery compared to other hard-tissue reconstruction methods (Yamamoto-Fukuda et al, 2009). In order to achieve disease-free and dry ears after surgery on 13 recurrent cholesteatoma cases which we experienced for 3 years, we adopted a canal wall down technique with soft posterior meatal wall reconstruction. We present