

Surgical Management of Chronic Suppurative Otitis Media

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Twenty five patients presenting with history of chronically discharging ear were offered surgical management which in this study includes tympanoplasty and mastoid explorations. Majority of the patients get benefit of surgery and showed marvellous improvements on follow up visits.

Key words: Chronic suppurative otitis media (CSOM), mastoid exploration

Chronic otitis media is the stage of otitis media that has irreversible sequelae or pathology such as perforated tympanic membrane, eroded ossicles, atelectasis of the middle ear, tympanosclerosis, cholesterol granuloma, granulation tissue or cholesteatoma. Otitis media varies in its appearance from patient to patient and sometimes is a challenging disease to correct and cure. While the tubotympanic disease runs a benign course, the atticointral variety has aggressive nature and carries significant risk of serious extra and intracranial complications. Patients with first variety nearly always carry a central perforation while the later group has attic perforation, retraction pockets or cholesteatoma.

Cholesteatoma is potentially dangerous because of its capacity to destroy bone; this action allows spread of the infection beyond the middle ear and the pneumatized areas of the temporal bone, and may result in otologic or intracranial complications¹. As it expands and spreads beyond its origin, cholesteatoma can impede sound conduction and prevent natural self-cleaning mechanisms of the ear from functioning. Bone destruction by cholesteatoma result from pyogenic osteitis and enzymatic bone resorption.

The objects of surgical management are to render the patient safe, to prevent further deterioration of function, to stop the discharge and to treat the supervened complications.

The surgical procedures performed in this study include myringoplasty, radical and modified radical mastoidectomy. The choice of surgical procedure depends on many factors, however canal wall down operation is currently the widely accepted in atticointral CSOM while myringoplasty is performed in central perforations, after the predisposing factors are dealt with^{2,3}.

Patients and Methods

This study was carried out on twenty five patients, in the ENT Unit-I Mayo Hospital/KEMC, over a period of one year i.e. February 1997 to February 1998. Among these twenty one patients were admitted through out patient department and four through emergency with suspected complications.

All patients underwent a complete history, thorough physical examination and relevant investigations. Examination under microscope was carried out before surgery. Evaluation of facial nerve and hearing thresholds

were done carefully in all patients before and after surgery. All of these patients underwent surgery under general anaesthesia.

Within 7-10 days after surgery patients were discharged and were advised a follow up visit one week after discharge, one month after discharge and then 6 monthly, till the ear becomes dry. In myringoplasty follow up cases it was noted whether the graft was taken or not.

Results

Although patients were over one year and under 50 years of age, the peak age incidence was 21-30 years (40%) followed by 11-20 years (28%). There was a male predominance (76%) as compared to female patients (24%), ratio being 3:1. Majority of patients belonged to poor socio-economic status.

Fifteen out of twenty five cases had tubotympanic variety of CSOM (60%). On otoscopy and examination under magnification 15 cases were having central perforation, 7 had attic perforations with cholesteatoma and 3 cases had posterosuperior marginal perforations. Culture reports reveal pseudomonas aeruginosa as predominant bacteria. Inlay technique was used in all fifteen (60%) myringoplasties and graft material was autologous temporalis fascia. Among canal wall down procedures seven cases (28%) underwent radical and three (12%) modified radical mastoidectomy.

Discussion

Otitis media is a multifactorial, multifaceted disease in which some form leads to others, resulting at times in complications and sequelae. Currently, surgery is intended to eradicate the disease process and to help regression of middle ear histopathologic changes.

Preoperative conservative treatment should be carried out. Vartianen E and Vartianen J had studied failures after surgical management in cases where pseudomonas were present predominantly⁴. Graft was taken in 12 out of 15 patients, success rate being 80%, while palva had only 3% failure rates⁴. 20% failure in our study was probably because of postoperative infections. As regards canal wall down procedures results were very good and 70% of patients had dry ear in a 6 months follow up time. However 2 patients had occasional discharge from the operated ear and one patient showed no improvement even after 6 months time.

This article is oriented towards a general discussion of otitis media based on one year study. It is an attempt to share what we believe to be some fundamental concepts. It also is an invitation to analyze current perspectives what we currently are doing.

Research advances include the development of a collagen based biomaterial, and development of a biodegradable support⁶. These advances will permit not only the replacement of "same with same" but also will be oriented more towards restoration of function than towards eradication of disease⁷.

References

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