



# How to Minimise Mastoid Cavity Problems



**George MV\***

*Department of ENT, Jubilee Mission Medical College, India*

**\*Corresponding author:** : George MV, Department of ENT, Jubilee Mission Medical College, India

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## Abstract

Mastoid cavities drain postoperatively occasionally. It may be due to multiple problems like high facial nerve ridge, A deep slump in the mastoid tip, Narrow meatoplasty, Uneven cavity, Residual disease. Here are some suggestions from my side to avoid these problems.

**Keywords:** Mastoid cavity problems; Facial ridge; Meatoplasty; Residual disease

## Introduction

Canal wall down mastoidectomy is a frequently performed operation for otitis media squamous type which are more likely to go in for complications. It leaves behind a cavity of varying sizes. The main problem encountered is the need for periodic clearance of the cavity as desquamated cells and wax debris etc can get collected inside the cavity. If the cavity is not fully epithelialized, there can be discharge also. Incomplete removal of the disease is another cause for the same. Lifelong care is needed in the maintenance of a well aerated dry cavity. How can we achieve the same is the next question? A well planned and executed cavity is likely to be a small, self-cleaning one. The main reasons for a discharging cavity are

- A. A high facial nerve ridge
- B. A deep slump in the mastoid tip
- C. Narrow meatoplasty
- D. Uneven cavity
- E. Residual disease

[1,2] The extent of the cholesteatoma, the size of the mastoid bowl, and the skill of the Surgeon are the three important factors influencing the creation of a good cavity. For a good mastoid cavity, the following criteria are to be taken care of

- A. There should be a good, wide cosmetically acceptable meatoplasty
- B. The mastoid tip should be in line with the level of the external auditory canal. There should not be any residual disease left behind.
- C. Reduce the size of the mastoid bowl as small as possible by obliteration of the cavity and by saucerization of the cavity.

## How to Achieve the Goal

- A. Make a large meatoplasty flap for covering the mastoid bowl. This can be planned initially before starting drilling of bone
- B. Start drilling from inside to the outside
- C. Use posteriorly based periosteal flap for obliteration, especially of the slump in the mastoid tip
- D. Fully saucerize the bony overhang
- E. Use Hypotensive Anaesthesia for better visualisation.
- F. Lower the facial ridge as much as possible.

## Discussion

Mastoid cavities drain postoperatively due to different reasons. The main reasons are incomplete removal of the disease. This may be due to poor execution of the surgery due to various reasons. The second cause may be the drainage through a perforation of the tympanic membrane even though the closure was done during surgery. In the presence of an infection, the graft might have failed. This can be tackled by a cartilage support during surgery or a second look tympanoplasty. Various materials have been used for obliteration of the cavity. Obliteration is done with various materials, like bone pate, periosteal flaps, muscle, cartilage pieces. Recently Bio glass material is also used [1,2]. large mastoid bowl after canal wall-down mastoidectomy not only is typically difficult to clean, but also often produces a repeatedly running ear. In addition, a large cavity may predispose the patient to vertigo with caloric stimuli [3]. Different Surgeons use their own decisions in the management of cholesteatoma. Some use the policy of using Canal wall down procedures for all large cholesteatomas (extending beyond the facial nerve canal)

whereas only patients with small cholesteatomas have been subjected to canal wall up procedures [4]. A well aerating meatoplasty also contribute a lot in the healing and the maintenance of it. Upper respiratory tract diseases like allergic rhinitis also must be taken care of. If all these results in a self-cleaning cavity, not much care is necessary. If the cavity is a big one periodic instilling of antibiotic, antifungal, steroid containing ear may become necessary and the patient will have to come for cleaning the cavity at least once in a year.

### Conclusion

The previously described six steps when utilised can reduce the mastoid cavity problems. This is the opinion of this author.

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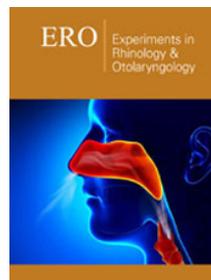
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