

Ear packing after ear surgery: is it really necessary?

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Abstract

Objective: We question the need for packing of the ear canal after ear surgery. For several years, it had not been the first author's standard practice to use post-operative ear packing. During this period, few problems or complications had been encountered.

Setting: Tertiary referral, academic, paediatric hospital.

Materials and methods: A retrospective review of all children who had undergone major ear surgery in our unit over the last year was carried out. These cases represented a full range of otological procedures. Post-operative complications and infections in the first six post-operative weeks were recorded.

Results: A total of 135 ears were operated upon in 107 patients ranging in age from 11 months to 19 years (mean 9.5 years). During this time period, eight children (7.5 per cent) developed a post-operative ear infection. No cases of tympanic or meatal granulations, problems with the tympanomeatal flap, or meatal stenosis were encountered. All infections were successfully managed with topical antibiotics.

Discussion: We conclude that packing after ear surgery may be safely abandoned. This would not only save valuable operating time, but would also obviate the need for pack removal, always a source of discomfort and anxiety. This is especially important in children, who may subsequently require a further general anaesthesia in order to remove the pack.

Key words: Otologic Surgical Procedures; Occlusive Dressings; Bandages; Complications

Introduction

Packing of the external auditory meatus after major ear surgery is an established practice in most hospitals. The type of packing varies between departments, with a wide range of individual preference based more on tradition than evidence. Some published reports have investigated different types of packing material, antibiotics or antiseptic materials used to cover ear packs, and some adverse reactions have been described.^{1,2,3} However, to the authors' knowledge, the fundamental need for packing has not been established.

Post-operative ear pack removal is a significant source of anxiety and discomfort, especially in the paediatric age group. In addition, the pack produces a temporary conductive hearing loss until removed, a point particularly relevant when there is already hearing loss in the unoperated ear, or when considering bilateral surgery.

Our change in practice was initially prompted by the observation that the surgical outcome of patients who removed their packing inadvertently whilst recovering from general anaesthesia did not seem to be adversely affected. This led to a gradual reduction in the use of ear packing, until it was abandoned entirely four to five years ago.

This study aimed to investigate outcome of middle-ear and mastoid surgery when post-operative ear packing was not used.

Methods

All children who had undergone open middle-ear or mastoid ear surgery during 2006 were included in this retrospective study; these cases reflected the full range of otological procedures. Patients undergoing grommet insertion, examination under anaesthesia or foreign body removal were excluded from the study. All patients were operated upon by the first author, or by a junior surgeon under the direct supervision of this author. For the purposes of this study, complications and infections in the first six post-operative weeks were recorded. However, because of the nature of the underlying otological problems, most patients required and received longer follow up.

No packing of the external auditory meatus was used for any of the patients, except for a few small pledgets of Gelfoam[®] soaked in antibiotic and steroid solution and applied directly to an exposed graft after myringoplasty, on occasion. Where necessary, a dry gauze swab was loosely taped over the ear to absorb any post-operative bleeding. The patients

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were instructed to observe strict water precautions for at least six weeks post-operatively.

Patients were routinely seen one and six weeks post-operatively, at which time a post-operative audiogram was carried out. Patients were instructed to return in the interim period if they experienced any discharge, bleeding or pain. Where infection or other complications were found, the patients were reviewed as often as was deemed necessary to successfully manage the problem. The patients did not receive routine post-operative antibiotic treatment unless there was evidence of infection during surgery.

Results

During 2006, ear surgery was performed on 135 ears in 107 patients ranging in age from 11 months to 19 years (mean 9.5 years). Eight of the 107 patients had a post-operative infection (7.5 per cent), with one child developing bilateral infections. Of the total of 135 ears, there were nine ear infections (6.7 per cent). All infections presented as ear discharge and were successfully treated with antibiotic and steroid ear drops. None had persistent discharge after antibiotic drops treatment. In only one child, a graft placed at myringoplasty was subsequently found to have failed, resulting in a residual perforation.

There was no documented evidence of flap necrosis, or granulations affecting the grafted tympanic membrane or tympanomeatal flap. There was no evidence of meatal stenosis. One patient developed infection at the site from which a tragal perichondrium graft had been harvested, but this was not considered to be associated with lack of ear packing. No other problems were found.

Discussion

Ear packing seems to be an established practice in many, if not most, otological centres. However, we have been unable to establish the rationale, or evidence base, for this practice. In fact, there is a paucity of work published on ear packing, except for comparisons of various types of ointment used with the packs. Curiously, in cases of traumatic perforation or damage to the meatal skin, the recognised teaching is to leave the perforation alone, avoid all packing and eardrops, and await spontaneous healing. Our rationale is that surgical intervention

can be considered analogous to ear trauma, and may thus be managed in the same way with respect to ear packing.

There are a number of clear advantages to not packing the ear after surgery. Firstly, the patient avoids the anxiety and pain of pack removal. This is especially important in children, who may subsequently require a further general anaesthesia in order to remove the pack. Secondly, any post-operative bleeding runs out of the ear instead of accumulating under the pack, so there is less risk of accumulated blood and secretions becoming infected. Thirdly, the patient's hearing is close to optimal immediately after surgery, whereas a pack confers a considerable hearing loss until removal. Fourthly, there is no risk of inadvertently disturbing a graft during the packing process or subsequent pack removal. Finally, operating time is reduced, as is the duration of the first out-patient visit.

We consider that packing after ear surgery may be safely abandoned. This will not only save valuable operating time, but will also obviate the need for pack removal, with its attendant anxiety and discomfort.

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