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Long-term ventilation tubes: for how long should they be used?

Dear Sirs,

I thank Dr Rinaldi *et al.* for taking the time to read my and Dr Martinez-Devesa's article, and for their kind and useful comments.

It is an intriguing idea to follow patients for two years, perform tubomanometry and then undertake elective removal of the T-tube followed by approximation and freshening of the tympanic membrane edges.

The results provided by Dr Rinaldi *et al.* are much better than the reported complication rates for T-tubes remaining in situ for more than 36 months.¹

It is also worth noting that long-term tympanostomy tube follow up is recommended for the paediatric population in the United States. Follow up is advised to continue until the tympanostomy tube extrudes or is removed, with recovery of normal hearing and normal eustachian tube function, together with closure of the tympanic membrane perforation.²

It would be interesting know more about the study which supplied the quoted figures for persistent perforation and recurrence. The most helpful piece of information would be whether any of the patients undergoing T-tube removal developed other complications such as cholesteatoma. Secondly, clarification of the tubomanometry method would be useful, that is, whether it employed the forced opening method or the physiological opening method, or both. Thirdly, it

would be helpful to know whether the cases of OME recurrence following removal with 'normal' tubomanometry affected Dr Rinaldi and colleagues' subsequent decision-making regarding elective T-tube removal.

It might be difficult to confirm the normality of eustachian tube function using tubomanometry. A study performed by Straetemans *et al.* found that the forced response test, pressure equalisation test and sniff test did not predict accurately the recurrence of otitis media in children.³ On the other hand, the adenoidal-nasopharyngeal index, which is measured from lateral neck X-rays, was found to be associated with middle-ear effusion and negative middle-ear pressure when it was greater than 0.71.⁴ The problem with this method is the need to expose the child to radiation; it is worth noting that both these studies were conducted in children.

In my current practice, I now follow up more patients after long-term tympanostomy tube insertion. However, others tend not to follow up these patients (various personal communications). This policy seems to be based on the assumption that if a patient develops any problem that cannot be managed by their general practitioner, then that patient can be referred to ENT again. Such a policy relies on patients' awareness of their symptoms (generally discharge and/or pain) to lead the process. While such practice succeeds in reducing the pressure on National Health Service resources, it may be unreliable for patients with poor health awareness, and it can certainly have negative consequences: examples include the development of a 'silent' cholesteatoma which shows no

symptoms for a period of time and the development of insidious hearing loss.

To sum up, while it is still advisable to undertake long-term follow up of patients with a long-term tympanostomy tube, it might be better not to electively remove the tympanostomy tube when there are no recurrent or significant complications.

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