- Abstract

Synonyms: Butterfly tympanoplasty, Inlay cartilage tympanoplasty, Eavey technique of cartilage tympanoplasty.

Objectives/Hypothesis

Since the initial report of the Inlay butterfly cartilage tympanoplasty in 1998 for small sized perforations in children, multiple papers and modifications have been described to extend the utility of this method.

The objective of our current study is to evaluate the overall graft take rate, hearing improvement, patient compliance and complications of the inlay butterfly cartilage tympanoplasty.

Patients and methods

Thirty one patients (19 female and 12 males) were enrolled in the current study between July 2007 and October 2009. Ages ranged from 17 to 55 years. Perforation sizes ranged from the size of a ventilation tube up to 6mm. Follow up observation period ranged from 1-25 months with a mean follow up of 13.96 months. For all patients inlay transcanal butterfly cartilage tympanoplasty was used to repair all perforations

Results

The graft take rate was 93.54% (29/31). There was closure of the air bone gap within 10dB in 21 patients (67.7 %) and within 20dB in 28 patients (90.3%) of patients. Hearing decreased in 3 patients (9.7%).

Conclusion

Transcanal inlay butterfly cartilage tympanoplasty represents a recent method of cartilage tympanoplasty which provides a very high graft take rate ranged from 84% up to 100%. Further, the technique offers advantages such as no post auricular incision, minimal postoperative pain, rapid recovery and return to work or school and shorter OR time which translates lower expenses.

Lastly, recent studies have shown that with time cartilage become thinned and becomes part of the drum and provides excellent hearing results.