ABSTRACT:
A COMPOSITE STUDY OF THE OUTCOME OF MODIFIED COMPOSITE CARTILAGE-PERICHONDRIUM GRAFT

The aim of this study is to report the results with modified composite cartilage graft in cases of type 1,2 and 3 tympanoplasty. A reprospective chart review for 1000 patients who had undergone tymplanoplasty at our centre was tabulated. Patient's age ranged from 10-75 years. The post operative follow up period was 24 months. Pre operative audiograms were recorded for all the patients and compared with post operative audiograms(recorded 3 months post operatively). The principal outcome measures were graft take, pre and post surgery audiologic evaluation.
The technique used, we call it a modified cartilage perichondrium graft because the cartilage(full thickness tragal cartilage) is always placed lateral to the handle of malleus with the perichondrium on one side, which stays medial. The perichondrium on the other side which is seperated from the cartilage earlier is placed over the cartilage making sure that it is medial to the remnants of the tympanic membrane.
The paired sample 't' test was used to compare differences in the mean(average) in pre operative and post operative cases. Analysis of varience was used to compare the post operative aor bone gaps of different cases.
According to our study which included 1000 patients,

who were operated for type 1/2/3 tympanoplasty with Modified composite cartilage graft, within a time span of 3 years, our results showed a success rate of 97% and a failure rate of only 3% in terms of both graft take rate and improvement in air bone gap.
We also studied the physics behind the sound transmission in thick cartilage. In spite of its thickness we found AB closure almost if not totally equivalent to tympanic membrane.

Shashi Ranjan
Chief consultant
ENT Hospital and Research Centre

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