Outcomes of cartilage graft endoscopic myringoplasty
A retrospective review

Thurairaju Ruthran; Rajan Philip; Yin Sze Ng; Supramaniam Prema; Pospanathan Pravina; Nalatamby Siri Kavita
Orl department, Hospital Raja Permaisuri Bainun Ipoh Perak Malaysia

Information/ Background

Myringoplasty is a common otological procedure done in chronic otitis media with the aim of closing the perforated tympanic membrane, to prevent recurrent otorrhea, to protect middle ear mucosa from infection, and to improve hearing. It is probably the earliest surgery performed by young otologic surgeons at the beginning of their carrier. Conventionally it was done using a microscope. Endoscopic myringoplasty has gained popularity over the last few years. Studies have shown good outcome with this technique.

Objectives

To investigate the outcome of endoscopic myringoplasty using a composite tragal cartilage/perichondrium graft in the surgical management of inactive mucosal chronic otitis media. Outcomes are measured in terms of surgical outcomes which was surgical closure of perforation and audiological outcome which was a measure of an average reduction in air bone gap.

Materials and Methods

A retrospective study on transcanal endoscopic myringoplasty from 2016-2019 in a tertiary health care centre. Case records from the ORL clinic were reviewed. Data was collected and tabulated according to size of perforation, graft type, underlay or overlay method and post-operative closure of perforation. Pre and postoperative mean air-bone gap at 3 months measured at 500 Hz, 1 kHz and 2 kHz was calculated.

Results

Of the 77 number of patients 46 were females and 31 were males. Mean age was 44.27. Among 77 ears 60 ears achieved complete closure. 10 did not achieve complete closure. 7 patients had defaulted follow up. The average air bone gap pre-operatively was 21.98. The average air bone gap post operatively was 13.28. The average improvement of air bone gap was 8.7. 58 number of overlay method and 12 number of underlay method. The success rate was 85%, excluding the 7 patients that had defaulted follow up. All 12 cases done using underlay method had achieved complete closure while 10 out 58 overlay method had not closed completely. Out of our 70 patients, 33 was done by our consultants of which 27 had achieved complete closure, 21 by our specialist 19 had achieved complete closure, and 16 was by our medical officers of which 14 had achieved complete closure.

Conclusion

Endoscopic myringoplasty with tragal cartilage success rate was 85% in this series. This is comparable to conventional microscopic approach.