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The Journal of Laryngology & Otology (2017), ***131***, *91*.

doi:10.1017/S0022215116009452

Authors' reply

Dear Editors,

Thank you for your letter regarding this article and the opportunity to respond.

We performed a retrospective study assessing the factors which may affect the outcome of myringoplasty using logistic regression analysis of a large cohort of both adult and paediatric patients undergoing myringoplasty.

It is interesting you state that Eustachian tube function was not assessed. The measure of Eustachian tube function was determined by the state of both the ipsilateral middle ear (inactive or active chronic otitis media with persistent or intermittent discharge) and the pre-operative condition of the contralateral middle ear (normal, otitis media with effusion, inactive or active chronic otitis media). Although one could argue that the condition of the contralateral middle ear is a proxy for ipsilateral Eustachian tube function, it certainly provides a reasonable measurement, as Eustachian tube dysfunction, in the main, tends to occur bilaterally. It would be interesting for the authors to elaborate on how they would measure Eustachian tube function, but, unfortunately, they do not address this in their letter.

I agree that myringosclerosis was not assessed as part of the study. However, if you look at many other studies in the literature, myringosclerosis is not assessed as an independent factor.[1–5] Whilst the authors have drawn reference to three studies which have assessed myringosclerosis,[6–8] I do not feel that they can draw a unifying conclusion from them. Pinar *et al*.[6] stated that the presence of myringosclerosis was a poor prognostic factor for myringoplasty success, whereas Migirov and Volkov[7] and Furukawa *et al*.[8] discussed operative technique. Migirov and Volkov, in a retrospective study of 40 children with myringosclerosis who underwent plaque excision during myringoplasty, concluded that plaque excision along with freshening of the perforation edges can result in a high rate of successful closure.[7] This is a cohort study with no control group and no statistical significance determined, so a robust conclusion cannot be drawn. Furukawa *et al*., in a cohort study of 11 patients with myringosclerosis affecting the entire drum remnant, with no control group, concluded that removal of myringosclerosis at the edge of a perforation is a beneficial technique in improving graft take rate in these patients.[8] I would agree that grafting onto a plaque of myringosclerosis with no drum remnant is likely to result in a poor graft take rate. It should be noted that this group also used fibrin glue to secure the graft. As there is no control, we cannot be certain of the effect of the fibrin glue and cannot determine whether this was the sole reason why there was successful closure of the perforation. There is no mention either of perforation size or site, which may also have influenced their results. With respect to our study, there were no cases of such extensive myringosclerosis.

I think the authors may have missed the point regarding the assessment of different graft types. The purpose of the study was to assess whether different graft types influenced the outcome. I agree that different graft materials have different properties. However, had we just included patients that had received the same graft material, it would have been impossible to state whether graft material had an effect on the outcome. Previously published studies have performed similar analyses on different graft materials.[4]

Overall, whilst the authors may have raised an interesting point regarding myringosclerosis, I do not feel that it is relevant to this study, and I would question the validity of their arguments regarding Eustachian tube function and graft material.

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