

Nasal and instrument preparation prior to rigid and flexible nasendoscopy: a systematic review

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Dear Sirs

We read with great interest the review by Nankivell and Pothier¹ on topical preparations for rigid and flexible nasendoscopy. The studies on this topic are of relatively small size with low statistical power (when quoted), and methodological differences render cumulative analysis difficult. It is therefore appropriate that descriptive summaries of these studies are presented, rather than statistical meta-analysis.

However, given the inconsistency of the results of these studies' with regard to the effect of topical vasoconstrictors, it may be imprudent to infer that lidocaine and vasoconstrictors, individually or combined, have no more effect than placebo on patient discomfort (as stated in Nankivell and Pothier's discussion section). Whereas no statistical difference between local anaesthesia alone vs placebo or no treatment is a consistent theme, Sadek *et al.*² reported that vasoconstriction reduced the unpleasantness of flexible nasendoscopy ($p = 0.022$). Supporting this, Jonas *et al.*³ found no benefit from the addition of a local anaesthetic (lidocaine) to a decongestant (oxymetazoline). However, in contrast, Leder *et al.*⁴ found no difference between tetracaine alone, adrenaline alone, saline alone and nothing. Interestingly, Pothier *et al.*⁵ reported that performing rigid nasendoscopy 10 minutes as opposed to one minute after co-phenylcaine application produces less discomfort, less pain and easier insertion. If local anaesthesia is accepted as having no significant effect compared to placebo or no nasal preparation, then this effect of cophenylcaine, in the context of a review of the topic, could have been attributable to the vasoconstrictor properties. The additional contribution by Douglas *et al.*⁶ that co-phenylcaine compared to lignocaine provided a better view for rigid endoscopy (though no difference in discomfort), suggests that vasoconstrictors may have a clinical benefit in preparing the nose for nasendoscopy.

We suggest that the present literature is inconclusive regarding the benefit from vasoconstriction.

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Authors' reply

Dear Sirs

We thank De Freitas and Hannah for their interest in our article.¹ However, we believe that a few points require clarification.

Firstly, whilst we agree that Sadek *et al.*² did show a reduction in unpleasantness when using a vasoconstrictor, the statement that Jonas *et al.*³ support this view is incorrect. The latter study compared only vasoconstrictor and local anaesthetic (finding no difference) and, as the study included no control group using no nasal preparation, it is not possible to conclude that use of a vasoconstrictor resulted in less unpleasantness. Indeed, as De Freitas and Hannah rightly point out, Leder and colleagues' four-arm trial⁴ found no difference between anaesthetic, vasoconstrictor, placebo and nothing.

De Freitas and Hannah state that, '[i]f local anaesthesia is accepted as having no significant effect compared to placebo...'; we believe this statement to be misleading. The study they quote (Pothier *et al.*)⁵ assessed the timing of preparation and its effect on the ease of nasendoscopy and the quality of the viewing image. This study's finding, that 10 minutes was superior to one minute, reflects the time the preparation (containing anaesthetic as well as vasoconstrictor) was in contact with the nasal mucosa, and therefore is the only valid conclusion that can be drawn. Furthermore, this study used rigid nasendoscopy, meaning that results cannot be extrapolated to or compared with those of flexible nasendoscopy.

Finally, we agree with De Freitas and Hannah's comment that the literature is inconclusive regarding topical preparations, due to the lack of high quality data; it remains to be seen whether such data will emerge in the future.

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