Clin Otolaryngol. 2011 Dec;36(6):550-7. doi: 10.1111/j.1749-4486.2011.02403.x.

A double-blind randomised controlled trial assessing the efficacy of topical lidocaine in extended flexible endoscopic nasal examinations.

Bonaparte JP[1], Javidnia H, Kilty S.

Department of Otolaryngology - Head and Neck Surgery, The University of Ottawa, Ottawa, ON, Canada. jbonapar@dal.ca

Abstract

OBJECTIVE:

To test the hypothesis that using lidocaine nasal spray will result in improved pain and comfort outcomes during an extended flexible endoscopic nasal examination.

DESIGN:

A split-body, double-blind, placebo-controlled randomised trial. After receiving a rinse of oral mouthwash (Listerine(®)), patients were randomised to receive placebo in one nasal cavity and 30 mg of topical lidocaine in the other.

SETTING:

A tertiary care centre outpatient Otolaryngology clinic.

PARTICIPANTS:

Twenty-two patients who required an extended bilateral flexible endoscopic nasal examination. An extended nasal examination consisted of an examination of a minimum of two osteomeatal regions on each side of the nasal cavity.

MAIN OUTCOME MEASURES:

Discomfort and pain were assessed using a 100-mm Visual Analogue Scale (VAS). Our study utilised the definition of pain based on International Association for the Study of Pain. Pain was defined as an unpleasant sensory and emotional experience associated with actual or potential tissue damage. Discomfort was defined as the overall unpleasant experience of the procedure. This included all aspects of the examination such as the pain or other negative sensations associated with the examination, any side effects associated with the application of the nasal sprays as well as any anxiety associated with the examination. A Wilcoxon sign-rank test was used for the primary outcome measures.

RESULTS:

There was a significant reduction in discomfort scores on the treatment side of the nasal cavity compared with the control side (median VAS score of 18.6 mm versus 44.6 mm; P = 0.01). The change in pain between the treatment side compared with the control side did not reach our definition of statistical significance (5.1 mm versus 9.2 mm; P = 0.05). Patients with an active or uncontrolled inflammatory

disorder of the nasal cavity experienced a significantly greater reduction in pain compared to those without an inflammatory condition (median change of the VAS score, -15.6 versus +1.0; P = 0.01).

CONCLUSIONS:

After a rinse with oral mouthwash, the use of lidocaine results in a significant reduction in the discomfort associated with an extended bilateral flexible endoscopic nasal examination. Patients undergoing such an examination would benefit from the application of lidocaine after masking the negative flavour using oral mouthwash.