

## Reference

- 1 Coblation Tonsillectomy. Interventional Procedure Guidance 9. London: National Institute for Clinical Excellence, 2003

## Author's reply

Dear Sirs

I think it is quite clear that my paper is neither an attack on the procedure of coblation tonsillectomy or on any specific individuals who have in the past extolled the virtues of this technique. More it is a simple honestly based critical appraisal of a relatively small series of patients performed in the hospital here. From the data presented, which have obviously been critically reviewed and accepted for publication, I find it difficult to see how either conduct or conclusions could be regarded as unfortunate. I felt very strongly that coblation tonsillectomy was to be a very useful technique and I embraced it from the outset, and undertook the time and trouble to be formally trained in this technique. The conclusion as to whether post-operative haemorrhage rates from a sample of 36 can be decreed significant or not, really depends on how many post-operative haemorrhages there are.

I make note of the Blackburn group's impressive series of coblation tonsillectomies, and my congratulations go out to them for my work. My paper obviously shows I do have an interest in the future of tonsillectomy, and because of this I will read their paper with interest.

In my study I make no pretence that it is anything other than a relatively small sample size. The Blackburn group use a technique that was an extension of their normal tonsillectomy technique, that being microscopic bipolar dissection, and given that I was keen to compare my series of coblation tonsillectomies with my established best practice i.e. bipolar dissection without the microscope and tying the lower pole, this was the technique I employed. With regard to the type of wand used, the Blackburn Group claim that we used the CoVak wand in all cases. In fact the paper quite clearly states that the newer Evac 70 suction-irrigating wand was indeed used in all cases, and this was indeed the case. Therefore the technique of coblation tonsillectomy used in my series differs from my normal technique of tonsillectomy only in the method of dissection used i.e. coblation rather than cold steel, and in haemostasis used i.e. coblation rather than bipolar diathermy. Having entered into the realms of coblation tonsillectomy I was therefore needless to say concerned when a relatively large number of sporadic secondary haemorrhages came to the fore, and naturally I felt I had a duty to report this. The use of a tie at a lower pole is my standard practice with the dissection technique and can in any event do nothing but add to any potential haemostasis. Given that using traditional techniques primary and secondary haemorrhage rates are in point of fact better than the national average within the department here, I felt it was reasonable to assume that the coblation process itself was in some way to blame.

The series I have published is obviously small but certainly not tiny. I did stop performing this technique when I felt ethically I could not continue. Initially I, like the Blackburn group, thought that my increased secondary haemorrhage rate was secondary to a learning curve effect. I therefore continued. However, one of the main worries with this work was the very sporadic nature in which the secondary haemorrhages occurred and statistically we have clearly demonstrated, I feel, that a learning curve effect could be factored out of these results. I readily acknowledge that some groups are enjoying very good results with

this technique and I applaud them. My small series is merely a cautionary tale and should be read and interpreted as that.

Mr S. P. Hargreaves  
Consultant ENT Surgeon,  
Royal Bolton Hospital,  
Bolton, BL4 0JR, UK.

## Unusual complication of tonsillectomy: taste disturbance and the lingual branch of the glossopharyngeal nerve *JLO* 2003;117:314–17

Dear Sirs

We read with interest the article by Uzun *et al.* on post-tonsillectomy taste disturbances. Although this is considered a rare complication, with little literature evidence, it is probably under-reported. This is presumably because tonsillectomy patients are rarely followed up. In a recent study, 12 per cent of post-tonsillectomy patients reported taste disturbance with seven per cent lasting more than six months compared with none in the control group.<sup>1</sup> In our unit, a postal survey of patients' perspective of the effect of tonsillectomy on recurrent tonsillitis uncovered two cases of post-tonsillectomy taste disturbance amongst 66 respondents. The two patients who initially volunteered the occurrence of the taste disturbance in the free comments space were contacted by telephone for further details of their taste disturbance.

The first case was a 33-year-old man who noticed an aluminium metallic taste and general taste reduction that persisted for a year before slowly resolving. The second case was a 35-year-old woman who described her taste disturbance as rotten, likened to an abscess which persisted for about two and half years. They both had undergone bipolar dissection tonsillectomy, were otherwise well and not on any medication. This had minimal impact on their oral intake and general health. They were pleased overall with the operative outcome, that resolved the tonsillitis that had plagued them for 16 to 20 years. Another case encountered by the second author was a 23-year-old woman who again underwent a bipolar tonsillectomy for recurrent tonsillitis. Post-operatively, she complained of a bitter taste to all her foods. Blood tests including zinc were normal and formal taste testing resulted in poor responses to sweet compounds with good delineation of bitter, salt and sour compounds. This affected her diet severely; with a marked decrease in consumption of sweet foods. Two years post-operatively she was still suffering from taste disturbances and had lost 1½ stone in weight. She rarely ate at restaurants leading to an impact on her social life and was placed on antidepressants. The use of bipolar diathermy in all the three cases may be relevant.

Although, in general it seems that the health impact of taste disturbances may be minimal and usually resolves over a period of time, but if permanent and/or severe can result in profound social and psychological problems. The lingual branch of the glossopharyngeal nerve that conveys taste sensation from the posterior third of the tongue is found to be firmly adherent to the tonsillar capsule in 21.5 per cent of cases in a cadaver dissection.<sup>2</sup> A similar percentage of patients undergoing tonsillectomy are therefore potentially at risk of post-operative taste disturbance. Minimal trauma to the tonsillar bed during operation is highly imperative to reduce the occurrence of taste disturbance. More importantly, serious consideration should be given to warning patients pre-operatively about this risk as a routine.

Mrs A. F. Oluwasanmi  
Department of Otolaryngology – HNS  
Southmead Hospital, Bristol, UK

#### References

- 1 Lowe DA, Hajioff D, Jayaraj SM, Frosh AC. Taste disturbance following adult tonsillectomy. *CME Bull Otorhinolaryngol Head Neck Surg* 2002;**6**:102–3
- 2 Ohtsuka K, Tomita H, Murakami G. Anatomy of the tonsillar bed: Topographical relationship between the palatine tonsil and the lingual branch of the glossopharyngeal nerve. *Acta Otolaryngol (suppl)* 2002;**546**:99–109

#### Author's reply

Dear Sirs

We would like to thank Dr Oluwasanmi for her letter regarding our paper. Their report of patients and references support our conclusion that tonsillectomy should be performed with minimal trauma to the tonsillar bed and patients should be informed of the risk of post-operative taste disturbance after tonsillectomy. We have usually been following up our tonsillectomized patients at least one month post-operatively, and our case was the first patient with a complaint of taste disturbance following tonsillectomy among 845 tonsillectomy cases operated on in our clinic between 1987 and 2003. We used an elevator for dissection, a wire loop for amputation, gauze tampons and silk ligatures for bleeding control. We do not use electrocautery or bipolar diathermy. As Dr Oluwasanmi mentioned, the use of bipolar diathermy or electrocautery<sup>1</sup> could be a possible cause for this complication, and it pays to do further studies. We conclude that especially the patients with an additional pathology extending into the lower pole of the tonsil may be at high risk for this complication.

Recently, we have contacted our patient by phone and learned that he was still suffering from taste disturbance 22 months after the surgery. He has preferred not to eat sweet foods and fruits. He said that this disturbance did not have an impact on his social life and he did not need to take any medication such as antidepressants. However, we agree with Dr Oluwasanmi and also wrote in our paper that pre-operatively, patients should be informed of the risk of post-operative taste disturbance.

Cem Uzun, M.D.  
Mustafa K. Adali, M.D.  
Ahmet R. Karasalioglu, M.D.  
Department of Otorhinolaryngology,  
Head and Neck Surgery,  
Trakya University Faculty of Medicine,  
Edirne, Turkey.

#### References

- 1 Vories AA. Dysgeusia associated with tonsillectomy. *Otolaryngol Head Neck Surg* 1999;**121**:303–4

#### Immunohistochemical and histopathological features of keratosis obturans and cholesteatoma of the external auditory canal. Atypical keratosis obturans *JLO* 2003;**117**:725–7

Dear Sirs

We read with interest the article by R. Persaud, P. Chatrath, A. Cheesman.

Among the external auditory canal diseases, keratosis obturans (KO) and external auditory canal cholesteatoma (EACC) are less known. Their descriptions in journal and books are full of differences. KO is a rare condition characterized by the presence of a keratin plug in the bony

position of the external auditory canal without an erosion of the underlying bone. EACC is defined as a result of a secondary growth of the stratified squamous epithelium, with inflammation and hyperemia with extensive erosion of the underlying bone. Neiborg *et al.* and Piepergerdes *et al.* demonstrated the differences in clinical and pathological presentations between these two diseases.<sup>1,2</sup> The cause of the KO has been related to seborrhoeic dermatitis, furunculosis, trauma, eczema, sympathetic stimulation of the cerumen glands (in bronchiectasis). Aetiology of spontaneous EACC has been poorly known so far. The characteristic finding in EACC is erosion of the bony external canal in the inferior or anterior part, sometimes with sequestration of the bone.<sup>3</sup> In the pathogenesis of the middle-ear cholesteatoma the main role is played by epithelial cell migration, hyperproliferation and differentiation.<sup>4</sup> Histopathological examinations proved, that spontaneous EACC and middle-ear cholesteatoma have no differences. Haematoxylin and eosin staining of an EACC show a thickening of the squamous epithelium and stroma with inflammatory infiltration. Adamczyk *et al.* showed significant statistical difference between the MIB1 immunoreactivity scores in EACC and normal skin.<sup>3</sup> The immunostaining for EGFR and TGF $\alpha$  showed a cytoplasmic staining pattern and was consistently stronger than in normal auditory meatal skin.<sup>3</sup>

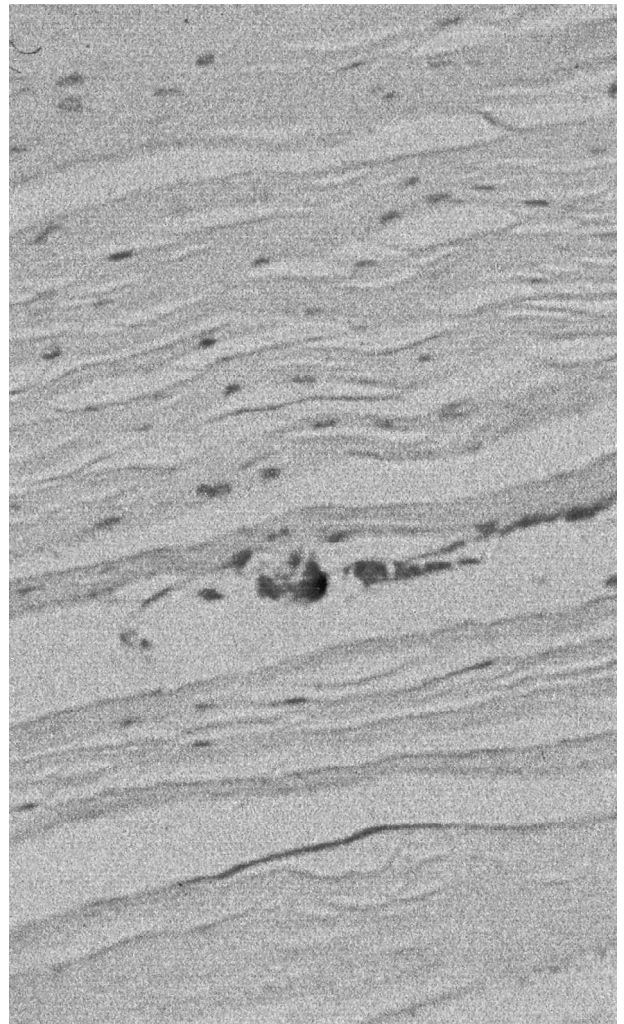


FIG. 1  
Keratosis obturans (H&E; ×400).