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possible prior to radiotherapy is sound oncological practice and cannot support their policy of blind radiotherapy to the whole of Waldeyer's ring.

Yours faithfully, A. P. Bath, G. E. Murty, P. J. Bradley, ENT Department, Norfolk and Norwich Hospital, Brunswick Road, Norwich NR1 3SR.

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## Patient satisfaction in ear surgery

Sir

In your Editorial 'The aims of middle ear surgery to improve hearing' (Journal of Laryngology and Otology 107: 1-3) Professor Browning rightly draws our attention to the difference in the definition of surgical success following tympanoplasty and stapedectomy that may exist depending on whether one is the surgeon or the patient. The idea that patient satisfaction might be considered rather than the more easily measured air-bone gap is one which we have been curiously slow to adopt but is one of the more tangible results to emerge from the amorphous fog of audit. I should like to develop the theme a little further to embrace two other topical areas in which there may similarly be some variance between surgeon and patient in perception of success.

Hearing preservation is seen as the new great objective in acoustic schwannoma surgery and of course such an aspiration seems highly laudable. However when one considers that, in the case of a unilateral tumour, the hearing in the opposite ear is nearly always normal, the surgeon has to be able to retain a hearing level of 30 dB or better for the patient to be aware of this great surgical success. Furthermore whereas in middle ear surgery the deafness usually results from signal attenuation alone, in the case of an acoustic schwannoma, the problem is compounded by distortion factors such as poor speech discrimination and abnormal adaptation. It is a common experience for patients who lose their debased residual hearing actually to report an overall improvement in their general speech intelligibility after translabyrinthine surgery. Our experience indicated that only 10 per cent of patients had a preoperative interaural pure tone difference of ≤30 dB, SD of  $\geq$ 50 per cent and a tumour of  $\leq$ 2 cm. Tightening the criteria, less than 1 per cent had a PT difference of  $\leq 20$  dB, SD of  $\geq 50$  per cent and a tumour of  $\leq 1$  cm (Hinton et al., 1992). Unless therefore one hopes for an improvement in hearing after hearing preservation surgery, and there is little to suggest that this often occurs, the numbers of patients who are candidates for this surgery is at present small although earlier diagnosis may increase the numbers a little. Sanna *et al.* (1992) summarize well the lack of precision that still exists in defining criteria for surgery, and for success, and highlights the 'surgical triumph which may not be appreciated by the patient'. In the case of NF2 of course the situation is different and any hearing which may be preserved and which may be subsequently assisted with a hearing aid may be of immense value.

With cochlear implantation the situation is subtly different. The best result from an implant is the patient who can follow conversation without or with minimal dependence upon lipreading and can converse on the telephone. These are the so called star patients and they may make as many as 50 per cent of a large series. Such results delight the surgeon and the implant team. It would however be very wrong to regard patients with a lesser level of performance as failures. Those patients who fail to achieve much open set discrimination and who use the device as a means of enhancing their communication skills by supplementing lipreading, nevertheless have their quality of life greatly enhanced. The level of patient satisfaction, regardless of objective measurement of performance, is very high; there are very few speech processors lying in drawers unused. It is important for surgeons to be aware of these facts. It would be relatively easy to produce a pure strain of star patients by for example excluding all patients who had been deaf for more than say 5-10 years. To do so however would deny a large number of potentially happy implantees the immense benefits of this revolutionary technology.

Professor Browning was right when he suggested that in ear surgery, measure by all means that which is measurable, but do not forget to ask the patient what he or she thinks about the results of our efforts.

Yours faithfully Richard Ramsden, Department of Oto-laryngology, University of Manchester, Manchester Royal Infirmary, Oxford Road, Manchester M13 9WL.

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