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The evidence base for aural rehabilitation with the bone-anchored hearing aid

For the past two decades otolaryngology has undergone considerable change. Firstly, there was the excitement of surgical innovation and the possibilities it presented. This was later tempered by the realization that the results were less than hoped for. Of particular concern was the unpredictability of outcomes.

There followed a general understanding of the need for outcome measures with meaningful standardization to allow comparison and permit attempts to predict whether intervention would be of benefit to the patient. This resulted in a more thoughtful approach to otological surgery exemplified by the 'Belfast rule of thumb' and the 'Glasgow benefit plot'.

Now we have entered a third phase, that could be characterized as consumerist. This has two parts; the first is based on patient satisfaction scores and patient report of benefit. The second is an attempt to look at the cost utility of procedures in terms of improved quality of life.

In this supplement to the *Journal of Laryngology and Otology* we will attempt to address the first of these two consumerist issues i.e. the patient's perception of life benefit. In 1996 the Birmingham Osseointegrated Group published the results of our Bone Anchored Hearing Aid Programme from 1988–1995, in that supplement we reported on our surgical methods, the referral pattern, our paediatric experience and the results in specific otological circumstances.

The anxieties about success rate in conventional otological surgery, especially that undertaken for hearing and the predictability of such surgery are still with us.

The bone-anchored hearing aid (BAHA) offers a low risk, highly acceptable method of aural rehabilitation for those with a conductive or mixed hearing loss and most importantly it is possible to predict the benefit for the patient with a high degree of accuracy.

This Supplement is composed of three parts but there is an underlying theme in the examination of attitudes to provision of aural rehabilitation by the use of validated questionnaires.

All the papers except for the first and last are based on questionnaires addressed to the patients who have been the recipients of aural rehabilitation.

The first paper, however, is a study of the knowledge, attitude and practice of the prescription of binaural hearing aids in the United Kingdom by Ear Nose and Throat doctors and Audiological physicians. The majority were aware of the existing evidence of the benefit of bilateral fitting but approximately the same number limited prescription because of cost. The awareness of benefit of bilateral prescription of other devices such as cochlear implants was less good, which is reassuring as the study is not yet complete! This supplement will provide new evidence of the advantage that two bone-anchored hearing aids (BAHA) have over single provision.

The second paper evaluates the use of a validated questionnaire, the Glasgow benefit inventory (GBI) in measuring patient satisfaction with the BAHA. The third paper uses the Nijmegen group questionnaire to compare the previous conventional aid with the bone-anchored hearing aid. The next paper evaluates patient satisfaction and service-related issues using the Entific Medical Systems questionnaire.

The next paper is on disability, handicap and benefit evaluation that, apart from the questionnaire, also required a prospective interview and displays very dramatically the hearing aid benefit, and reduction in residual disability.

The final two papers then revisit the question of bilateral fitting, but this time in the case of the bone-anchored hearing aid.

We have not attempted a cost-benefit analysis as the costings need refinement. However, the dramatic reduction in the number of visits to the ENT department and general practice by those fitted with the bone-anchored hearing aid will, over a lifetime of use, generate great savings in cost, time and suffering.

We hope that this series of papers published as a supplement will not only make a strong case for the benefit of the bone-anchored hearing aid but also, by using this consumerist method, be the vanguard of this approach, that puts the patients' perceptions at the centre of the evaluation.

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