

## Letters to the Editor

### Shoulder function after radical neck dissection

Dear Sir,

We read with interest the audit into the incidence of handicap after unilateral neck dissection by Shone and Yardley. Certainly the 'shoulder syndrome' (Nahum *et al.*, 1961) is a common and unpleasant complication of this operation when performed as described by Crile (1986) and is largely attributable to motor denervation of the trapezius muscle. More recently a second motor supply to this muscle has been described originating from the third and fourth cervical spinal nerves (Weitz *et al.*, 1983). These nerves may be preserved if the deep cervical fascia is not breached in the posterior triangle of the neck during the performance of a radical neck dissection and the benefits from taking this precaution have already been reported (Jones and Stell, 1985; Manning and Stell, 1989). We therefore recommend this modification to the classical technique of radical neck dissection in an effort to reduce the occurrence of this unpleasant complication.

Yours faithfully,

A. W. McCombe, Registrar

J. Cook, Lecturer

University Department of Oto-Rhino-Laryngology,  
Royal Liverpool Hospital,  
Prescot Street,  
P. O. Box 147,  
Liverpool L69 3BX

### References

- Crile, G. W. (1986) Excision of cancer of the head and neck. *Journal of American Medical Association*, **47**, 1780–1786.
- Jones, T. A., Stell, P. M. (1985) The preservation of shoulder function after radical neck dissection. *Clinical Otolaryngology*, **10**, 89–92.
- Manning, M., Stell, P. M. (1989) The shoulder after radical neck dissection. *Clinical Otolaryngology*, **14**, 381–384.
- Nahum, A. M., Mullally, W., Marmor, L. (1961) A syndrome resulting from radical neck dissection. *Archives of Otolaryngology*, **74**: 82–86.
- Weitz, J. W., Weitz, S. L., McIlhinney, A. J. (1983) A technique for preservation of spinal accessory nerve function in radical neck dissection. *Head and Neck Surgery*, **5**, 75–78.

### Reply:

Dear Sir,

The clinical significance of the innervation of Trapezius through the third and fourth cervical spinal nerves has been the subject of several papers. We entirely agree with McCombe and Cook that preservation of these nerves may result in retention of partial Trapezius function, and look forward to seeing some EMG evidence which would confirm or refute this.

Yours faithfully,

G. R. Shone

M. P. J. Yardley,

P.S. The references in McCombe and Cook's letter contain at least two errors—Crile's paper was published in 1806\* and Weitz *et al.* in 1982.

Department of Otolaryngology,  
University Hospital of Wales,  
Heath Park,  
Cardiff CF4 4XW

\*Try 1906! Ed. (George Washington Crile, 1864–1943).

### Mastoidectomy packs: Xeroform or BIPP?

Dear Sir,

Chevetton *et al.* (1991) carried out an interesting study which confirmed the clinically observed superiority of BIPP over Xeroform. They have not provided a possible explanation on why BIPP is so effective, but cast doubt on two possible means I had suggested in an earlier study (Nigam and Allwood, 1990). The evidence for their doubt is not backed up by any scientific evidence in their retrospective study.

In paragraph one they describe Xeroform as a 'non-adherent absorbent gauze' and they then appear to contradict themselves by stating the gauze is impervious to blood. Clinically Xeroform dressings become infected and therefore must be permeable, whereas BIPP dressings remain comparatively fresh. In practice, antibiotic cover is not required with BIPP packing to the mastoid.

Yours faithfully,

Ajay Nigam, F.R.C.S.Ed., F.R.C.S.Eng.,  
The Queen Elizabeth Hospital,  
Queen Elizabeth Medical Centre,  
Edgbaston,  
Birmingham B15 2TH.

### Reference

- Nigam, A., Allwood, M. C. (1990) BIPP—How does it work? *Clinical Otolaryngology*, **15**: 173–175.

### Reply:

Dear Sir,

We thank Mr Nigam for the interest shown in our paper. The aim of our study was to compare the clinical efficacy of Xeroform and BIPP as a mastoidectomy dressing. It was not a study of the mechanism of each pack's efficacy.

There was evidence, however, to reject both hypotheses of Nigam and Allwood (1990). Their first hypothesis was that the meticulous debridement of the mastoid cavity by the surgeon prevented subsequent infection. In our study the same meticulous debridement took place in both the Xeroform and BIPP cavities by the authors and yet only the Xeroform packs became infected. The only variable at operation was the choice of pack.

Their second hypothesis suggested that ribbon gauze impregnated with BIPP was impervious to blood and other body fluids thus limiting the nourishment for bacteria to thrive in its interstices. Xeroform is described by the manufacturers as a 'sterile non-adherent absorbent gauze impregnated with 3 per cent bismuth tribromophenate in a petroleum blend'. It is the petroleum blend in Xeroform and the paraffin in BIPP that renders each pack blood and water impermeable. We have incubated both packs for 24 hours at body temperature in blood and water. Examination of each pack microscopically showed no impregnation of either fluid into the interstices of the packs. It does not, however, follow that BIPP or Xeroform packs cannot become impregnated with bacteria. Blood and exudate from the raw surface of a newly fashioned mastoidectomy cavity are ideal culture media for bacteria. In practice BIPP dressings do not become infected and there is evidence that BIPP inhibits bacterial growth (Chambers and Goldsmith, 1917; Saint, 1937; Garrod, 1940).

Our study showed Xeroform does not inhibit bacterial growth but instead allows bacteria to thrive in the blood/

exudate media and permeate into the pack causing gross infection. It is the make-up of the pack which prevents infection and not the impervious nature of the pack to blood.

Yours faithfully,

R. D. R. Mcrae, F.R.C.S.,

Elfy Chevretton, M.S., F.R.C.S.,

J. B. Booth, F.R.C.S.,

The Royal London Hospital,

Whitechapel, London E1 1BB.

#### References

- Nigam, A., Allwood, M. C. (1990) BIPP—How does it work? *Clinical Otolaryngology*, **15**: 173–175.
- Chambers, H., Goldsmith, J. N. (1917) The bacteriological and chemical action of bismuth iodoform paraffin paste. *Lancet*, **i**: 333–335.
- Saint, J. H. (1937) BIPP method of treatment of acute osteitis. *Lancet*, **i**: 1211–1217.
- Garrod, L. P. (1940) Prevention and treatment of wound infection. *Lancet*, **i**: 798–802.