The Journal of Laryngology and Otology
April 1992, Vol. **106**, pp. 313–315

Conservative treatment in the management of inflammatory aural polyp

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Abstract

This prospective study assesses the role of intensive outpatient based conservative treatment in the management of aural polyp.

All cases of aural polyp that presented to the department during 1990 were included. Patients with obvious cholesteatoma or in whom inner ear or intracranial pathology was suspected were excluded as were children and patients who had undergone previous ear surgery.

We found that treatment with topical steroid/antibiotic decreases disease activity and renders subsequent surgery less extensive.

Introduction

Little information exists on the nature and management of aural polyps (Rhys Williams *et al.*, 1989). Whilst there is little doubt that the presence of an aural polyp signifies active middle ear disease (Hussain, 1991), surgery is easier to perform and likely to be more successful if the ear is inactive (Browning *et al.*, 1988).

The purpose of this study is to assess the role of intensive conservative treatment in the management of aural polyp.

Materials, methods and results

This is a prospective study of all cases of aural polyp that presented to the department in 1990. Patients with obvious cholesteatoma or in whom an inner ear or intracranial pathology was suspected were not included. Children and patients who had undergone previous ear surgery were also excluded.

A total of seven patients were included (Table I).

All had intensive conservative treatment in the Outpatients' department.

The ear was examined under the microscope and suction cleaned of any discharge. An assessment was made of the size of the polyp and the type of tympanic membrane perforation. The polyp was cauterized with silver nitrate and a gentamicin and hydrocortisone laden wick was inserted. This was changed weekly for three weeks.

Gentamicin was used as this is the only topical antibiotic with a product licence for use in the presence of a perforated eardrum and also because studies by McKelvie *et al.* (1975) and Browning *et al.* (1988) have shown that gentamicin used topically is not ototoxic.

Conservative treatment has reverted two ears to normal. In two cases the ears were rendered dry and may require a simple repair procedure. In one case polypectomy was performed as conservative treatment had been unsuccessful; this ear is now dry and appears to be healing. Two ears have remained moist although the polyps have disappeared; these will each require a cortical mastoidectomy and myringoplasty.

Discussion

The management of aural polyp is controversial. Although surgery is the accepted treatment the type and extent of surgery required is not so clear.

Veitch *et al.* (1988) retrospectively reviewed 200 aural polypectomies to assess the proportion that subsequently became inactive. They concluded that it was difficult to justify aural polypectomy under general anaesthesia in previously unoperated ears without carrying out a more formal exploration at the same time.

However Rhys Williams *et al.* (1989) retrospectively analyzed 65 cases of aural polypectomy and found that 58.3 per cent of their cases became inactive after this procedure. This increased to 72.7 per cent if only the tubotympanic group was included. The result of their atticoantral group was 50 per cent. The authors felt that aural polypectomy was sufficient to render the majority of ears dry thereby avoiding more extensive and unnecessary procedures.

Previous studies (Browning *et al.*, 1983) have underlined the failure of systemic antibiotics including metronidazole in creating an inactive ear in chronic otitis media.

Our experience of the use of topical steroid/antibiotic in this series has been encouraging. This treatment reduces disease activity thereby making subsequent surgery less extensive. Furthermore, in granulating otitis, the ossicular chain is likely to be intact (Tos, 1979) so that modified radical procedures are generally not required.

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Accepted for publication: 31 December 1991.

TABLE I

No.	Age	Sex	Ear	Presenting complaint	Examination	Investigations	Treatment	Follow up visits	Results
1	38	F	R	January 1990. Two weeks' history of otorrhoea and deafness.	Mucoid discharge polyp less than 50 per cent of TM. Central perforation.	No growth on culture. 40 dB loss.	EUM suction clearance. Silver nitrate cautery to polyp. Gentisone HC laden wick changed weekly for three weeks.	1. Dry ear. 2. August 1990—normal TM.	Normal ear. Discharged from clinic February 1991.
2	60	M	R	February 1990. Intermittent otorrhoea: two years.	Mucoid discharge. Polyp less than 50 per cent of TM. Posterior performation.	Swab grew coliform proteus and bacteroides fragalis. 50 dB loss.	EUM suction clearance Silver nitrate cautery to polyp. Gentisone HC laden wick changed weekly for three weeks.	1. Dry ear. 2. April 1990. Dry posterior perforation. 3. June 1990. Placed on waiting list for myringoplasty.	August 1990. Declined surgery.
3	32	M	R	February 1990. Intermittent otorrhoea: eight months	Mucoid discharge Polyp 50 per cent of TM Posterior inferior perforation.	Swab grew proteus and anaerobes. 35 dB loss.	EUM suction clearance. Silver nitrate cautery to polyp. Gentisone HC laden wick changed weekly. Ampicillin 500 mgm six hourly for 10 days.	Irregular attender. 1. August 1990 recurrence of polyp and discharge. Treatment repeated. 2. December 1990. Moist ear. No polyp.	May 1991. Moist perforation. Placed on waiting list for cortical mastoidectomy and myringoplasty.
4	59	F	L	March 1990. Intermittent otorrhoea: six months.	Mucoid discharge. Small polyp 25 per cent of TM. Central perforation.	No growth on culture 30 dB loss.	EUM suction clearance. Silver nitrate cautery to polyp. Gentisone HC laden wick changed weekly for three weeks.	1. April 1990. Dry perforation. No polyp. 2. August 1990. Dry perforation. Quiescent disease.	February 1991. Asymptomatic. Dry, clean perforation.
5	28	M	L	April 1990. Otorrhoea and deafness: three months.	Purulent discharge. Polyp more than 50 per cent of TM. Posterior superior perforation.	Swab grew proteus. 30 dB loss.	EUM suction clearance. Silver nitrate cautery to polyp. Gentisone HC laden wick changed weekly for three weeks.	May 1990. Dry perforation Polyp cleared. July 1990. Recurrence of polyp and discharge. Repeat conservative treatment. August 1990. Dry perforation.	May require cortical mastoidectomy and myringoplasty.
6	15	M	L	July 1990. Profuse otorrhoea two weeks. Pain two weeks ago for one week.	Mucoid discharge. Polyp 100 per cent of TM.	No growth on culture. 35 dB loss.	EUM suction clearance. Silver nitrate cautery to polyp. Gentisone HC laden wick changed weekly for three weeks.	August 1990. Polyp down to a third of its original size. Continued to discharge. September 1990. Aural polypectomy under GA. Attic perforation. No cholesteatoma.	October 1990. Dry perforation. March 1991. Appears to be healing.
7	54	M	R	November 1990. Otorrhoea and deafness—three months.	Mucoid discharge. Polyp less than 25 per cent of TM. Postero-inferior perforation.	No growth on culture 30 dB loss.	EUM suction clearance. Silver nitrate cautery to polyp. Gentisone HC laden wick changed weekly for three weeks.	December 1990. Polyp cleared. TM healing.	February 1991. Normal TM.

One of the problem with medical treatment is patient compliance. In their work on active chronic otitis media Browning *et al.* (1988) have shown that when medical treatment with antibiotic/steroid ear drops is instituted about 50 per cent of ears will be come inactive provided compliance is greater than 70 per cent. Intensive out-patient based conservative treatment has the advantage of greater compliance.

Acknowledgements

I would like to thank Mr A. G. Gandhi and Mr I. D. Fraser Consultant ENT Surgeons for permission to include their patients in this study.

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Key words: Aural polyps; Otitis media, suppurative.