

Chronic Suppurative Otitis Media in Children

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Summary

Ibekwe AO. Chronic Suppurative Otitis Media in Children. *Nigerian Journal of Paediatrics*, 1985; 12:17. A retrospective study of 121 children (76 males, 45 females) with chronic suppurative otitis media, was carried out. Seventy (58%) of the children were aged between 6 months and 5 years while the remaining 51 (42%) were aged between 6 years and 10 years. Subperiosteal mastoid abscess and facial paralysis were the most common complications. Treatment schedule which would be most suitable for general practitioners who might not have access to bacteriological studies has been suggested.

Introduction

THERE are few publications on chronic suppurative otitis media in children and nearly all deal with the bacteriology of the disease¹⁻³. In view of the fact that this condition is the commonest ailment seen by otolaryngologists in children in Nigeria^{4, 5}, this study was undertaken, in an effort to examine various aspects of the problem.

Materials and Methods

All children, aged between six months and 10 years with chronic suppurative otitis media (discharging ear of more than 2 months duration) who were seen at the Ear, Nose and Throat Clinic of the University of Nigeria Teaching Hospital, Enugu, between July 1980 and June 1982 were studied. The study included documentation of the age and sex of the patients, results of

the bacteriology of the pus where available, observed complications of the disease, treatment offered and the outcome of such treatment.

The treatment regime used was conservative; namely: aural toilet, local and systemic antibiotics and decongestants. Only patients with complications had mastoid exploration.

Results

There was a total of 121 children (76 males and 45 females). Seventy children (58%) were aged between 6 months and 5 years, while the remaining 51 (42%) were aged between 6 years and 10 years. Sixty-one children had unilateral disease, whilst 60 had bilateral disease.

All the patients had tubotympanic disease as opposed to attico-antral disease. Tubotympanic disease is chronic suppurative otitis media that follows poorly or untreated acute otitis media. These patients had purely mucosal disease usually with a central perforation of the ear drum. Only 36 (30%) of the cases studied had bacterial cultures done on the ear discharges. In 11 (31%) of these 36, *Staphylococcus aureus*

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was the organism isolated. This was followed by *Pseudomonas pyocyanea* in 9 (25%), *Bacillus proteus* in 7 (19%), mixed flora in 6 (17%), while there was no growth in the remaining 3 (8%).

Ten of the children had complications, a complication rate of 8% (Table). Two patients had both facial paralysis and mastoid abscess.

With the conservative method of treatment described above, 70% of the patients had dry ears after two to three weeks of treatment. Twenty per cent had dry ears after about two months of treatment while the rest failed to dry up. Two of the patients died, one of meningitis and the other of brain abscess; a mortality rate of 1.65%.

TABLE

Complications of Chronic Suppurative Otitis Media in 121 Children

Complications	No of Cases	% of Cases
Mastoid abscess	5	4.1
Facial paralysis	4	3.3
Mastoid sinus	2	1.7
Meningitis	1	0.8

Discussion

Chronic suppurative otitis media is a major otolaryngological problem in Nigerian children. The reasons for this are not far to seek, considering the various conditions that predispose to chronic discharging ears. Upper respiratory tract infections are very common in this environment and often lead to acute otitis media. This is either untreated or often poorly treated because of the ignorance of the parents. Only when the ears start discharging do the parents seek medical advice. In many cases, this is done quite late. Measles is also very common and often results in necrotising otitis media which ends in chronic suppurative otitis media⁴. Malnutrition is still a problem in both the urban and rural areas where

poverty still exists; this helps to promote the development of ear infections in children.

All the patients seen in this study had the tubotympanic variety of chronic suppurative otitis media which usually follows poorly or untreated acute otitis media^{1 4}. The male preponderance in chronic suppurative otitis media is in keeping with reports from other centres^{1 4 5}.

Only 30 per cent of the cases in this report had bacteriology done on the ear discharge. In these, *Staphylococcus aureus* was the predominant organism followed by *Pseudomonas pyocyanea*. This finding agrees with our earlier report² and that of Friedman⁶ and Gyde⁷. It is to be noted however, that, after a long time, *Pseudomonas pyocyanea* tend to become the predominant organism^{1 7}.

The complication rate of 8 per cent was made up of predominantly subperiosteal mastoid abscess and facial paralysis. This complication rate compares favourably with the 10.9 per cent reported by Okafor⁴ whose study included all age groups. In general, complications of chronic otitis media occur more frequently in children than in adults.

In the light of our local experience, the following treatment regime has been found quite useful. At the child's first visit to the clinic, after the necessary clinical examination, a swab of the ear discharge is taken for bacteriological examination. The ear is cleaned out, using cotton wool. The mother is also instructed how to do this, using self-made wool carrier or commercially prepared cotton buds. Then, the patient is started on an oral broadspectrum antibiotic such as ampicillin, as well as local ear drops, preferably *Genticin* ear drops and an oral decongestant such as *Actifed* or *Rhinopront*. Our experience has shown that this conservative treatment often leads to a cessation of the ear discharge by the time the children come for a return visit in a fortnight. With this simple measure, dry ear will be achieved in a majority of the patients within a month of the first visit and the rest will eventually dry up later. Only very few patients will need mastoid exploration if they have tubotympanic variety of chronic

suppurative otitis media. If the ear fails to dry up then, one must not forget that such a discharge could be due to fungi such as *aspergillus* and *candida albicans*, as has been reported by some workers^{2 3}. We recommend this regime to general practitioners who may not have access to laboratories that can provide microbiological studies.

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