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 disease. In view of the fact that this condition is the commonest ailment seen by otolaryngologists in children in Nigeria, 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 attic-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*
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
cars after two to three weeks of treatment.
Twenty per cent had dry cars 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>
<thead>
<tr>
<th>Complications</th>
<th>No of Cases</th>
<th>% of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mastoid abscess</td>
<td>5</td>
<td>4.1</td>
</tr>
<tr>
<td>Facial paralysis</td>
<td>4</td>
<td>3.3</td>
</tr>
<tr>
<td>Mastoid sinus</td>
<td>2</td>
<td>1.7</td>
</tr>
<tr>
<td>Meningitis</td>
<td>1</td>
<td>0.8</td>
</tr>
</tbody>
</table>

**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
cars 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 media. 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
subotympanic variety of chronic suppurative
otitis media which usually follows poorly or un-
treated acute otitis media. The male preponder-
ance in chronic suppurative otitis media is in
keeping with reports from other centres.

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 report and that of
Friedman and Gye. It is to be noted however,
that, after a long time, Pseudomonas pyocyanea tend
to become the predominant organism.

The complication rate of 8 per cent was made
up of predominantly subperioveal mastoid
abcess and facial paralysis. This complication
rate compares favourably with the 10.9 per cent
reported by Okafor 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 follow-
ing 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 exami-
nation. 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 Gentamicin ear drops and an oral
dehcongestant such as Actifed or Rhinopont. 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. We recommend this regime to general practitioners who may not have access to laboratories that can provide microbiological studies.

**Acknowledgements**

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**References**