A Study of the Incidence and Causation of Deafness Among the Children in the Tribal Population of Manipur and Its Prevention

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Abstract

In a clinico-audiological study of 6,674 children in 24 tribal villages in the hills of Manipur in a total population of 18,565, the incidence of deafness is found to be 6.62%. The incidence of the conductive deafness is 98.64% and that of the sensorineural is 1.35%. Episodes of cold attacks and running nose are found to be precursors of the prevalent conductive deafness. Preventive measures are worked out.
Communication has gradually and eventually taken a very important place in the ever ongoing human world. To hear somebody talk or speak and to be able to understand and to communicate to one another is becoming very essential in the development of one's knowledge, intelligence, wisdom and finally of a good personality. Also these are the qualities which are counted when one goes for a vocation or a job prospect to one's liking specially so in this modern age of competition.

Definitely deprivation of hearing adversely affects a man of such qualities. Deaf children find difficulties to develop academically and find themselves very poor in the keen competition of life in their future years. To keep children well equipped on this aspect and to prepare them to be the future pillars of the society should be the prime duties of every parent as well as of the health personnels. With this observation, the authors took up this study. Such a study has not been taken up earlier in this part of our country.

Materials and Methods

From July 1993 to October 1994, the study team covered 24 tribal villages, 20 in the hill districts of Manipur and 4 pocket villages in the valley, altogether over a population of 18,565. 9 villages belonged to the Rongmei Nagas, 5 to the Tangkhul Nagas, 4 to the Kukis and 1 each to the Vaipheis, the Paites and the Hmars combined, the Koms, the Thangals, the Anals and the Moyons respectively. Despite certain minor cultural differences, all of them were almost of the same habits and socio-economic status was no more recorded because it was easily observable that 99% of the children belonged to the poor socio-economic group.

A clinical-audiological survey of 6,674 children below 12 years of age was done, out of which 442 were spotted to have impairment of hearing of deafness. A thorough work-up, including the recording the social, educational, behavioural and intelligence status in addition to detailed history-taking, careful ear, nose and throat examination and tuning fork tests and an audiogram with a portable audiometer was done for each of the 442 children.

Medical treatment, advice for follow-up as well as instructions for prevention against further worsening of the involving disorders to the concerned parents or guardians were also rendered in the form of small-time-free-medical camps.

Results and Observation

The percentage of children's population in the villages was 35.77% and there was 6.62% prevalence of deafness among the children (Table-I). 98.64% of the deafness was of the conductive type with ratio between the unilateral and bilateral involvement as 1.9:1. The sensori-neural type of deafness was found only in 1.35% of the cases with the ratio between the unilateral and bilateral involvement as 1:5 (Table-II).

The age incidence was found to be highest in the children group of 6-10 years of age (Table-II). Males were found to be more than the females in all age groups with an overall ratio of 1.25:1. The sex ratio became narrower (1.01:1) in the age group of 10-12 years).

The disorders (causes of deafness) found to be associated with the conductive deafness were chronic suppurative otitis media (C.S.O.M), acute suppurative otitis media (A.S.O.M), healed perforations of the tympanic membrane and disorders of the nose, paranasal sinuses, adenoids and tonsils affecting the air-pressure system of the middle ear cleft as shown in the Table-IV with their distribution of causes.

C.S.O.M. was found to be the lesion in 51.83% of the

<table>
<thead>
<tr>
<th>Total number of children</th>
<th>Total number of deaf children</th>
<th>Number of deaf children</th>
<th>Percentage of children's population</th>
<th>Percentage of deaf children</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.655</td>
<td>6.674</td>
<td>442</td>
<td>35.77%</td>
<td>6.62%</td>
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Children population and percentage of deaf children.