ASSESSMENT OF HEARING IMPAIRMENT IN CHILDREN AT TERTIARY HOSPITAL, YANGON

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Introduction

- Globally, hearing impairment is one of the most frequent sensory disabilities. In 2015, World Health Organization estimated that 360 million people has disabling hearing loss and 32 million of these are children (WHO GE, 2017).

- Hearing impairment can affect the development of speech and language.

- Early identification and intervention can prevent severe psychosocial, educational and linguistic development and allows a child with impaired hearing to develop normal speech and language.

Objectives

To assess the prevalence of hearing impairment of children who come to the hospital.

To find out the association between risk factors such as neonatal intensive care admission, birth asphyxia, neonatal jaundice, birth history of preterm and fullterm and ototoxic drugs and hearing impairment.

Materials and Methods

- Data was collected according to age group A(<6months), group B(6months-2and half years), group C(2and half years to 5 years) and group D(>5 years).

- Data was analysed by using SPSS software.

- Variables that association between risk factors and hearing impairment was used chi-square test and p value <0.05 was defined by Fisher’s exact test.

Figure 1. Prevalence of hearing impairment

Figure 2. Age distribution of hearing impairment

Figure 3. Association between risk factors and hearing impairment

Results

- From this study, most children came to hospital for hearing assessment referred by paediatrician for speech delay, risk factors like neonatal intensive care unit, preterm baby, neonatal jaundice and birth asphyxia and some children whose parents noticed that hearing impairment.

- The prevalence of hearing impairment had 56% among 889 children. Hearing impairment in group C and group D had 74.5% and 75.1% and 36.7% in group B and 11% in group A respectively. The most common type of hearing loss was sensorineural hearing impairment and it was prelingual deafness.

- All risk factors in this study except history of ototoxic drugs were associated with hearing impairment. p value was <0.05 and it was significant.

- There was no association between sex distribution and hearing impairment.

- After diagnosis was confirmed, depending on degree of hearing loss, early interventions and rehabilitation was done.

- Hearing aids was given to 68 patients and 17 patients was done cochlear implants. The rest of patients who were not candidates for hearing aids and cochlear implants were advised to go to school for deaf.

Table 1. Numbers of children with hearing aids and cochlear implants

<table>
<thead>
<tr>
<th></th>
<th>Hearing aids</th>
<th>Cochlear implant</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>35</td>
<td>8</td>
<td>43</td>
</tr>
<tr>
<td>Female</td>
<td>33</td>
<td>9</td>
<td>42</td>
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<tr>
<td>Total</td>
<td>68</td>
<td>17</td>
<td>85</td>
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</tbody>
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References


Conclusion

Neonatal hearing screening is major role in detection of hearing impairment. If hearing impairment detected early, it can prevent the impairment of speech and language development. If the risk factors related to hearing impairment are preventable, early awareness and assessment of hearing in children should be done to get diagnosis in time.

From this data and research, it was concluded that hearing impairment in children is a main issue to get early diagnosis, to give early intervention and to prevent communication disabilities.