Aetiological Profile of Facial Nerve Palsy in North Central Nigeria

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Background: Facial nerve abnormalities represent a broad spectrum of lesions which are
commonly seen by the otolaryngologist. The aim of this paper is to highlight the aetiologic
profile of facial nerve palsy.

Methods: A retrospective study of patients with facial nerve palsy seen in the Ear, Nose
and Throat clinic for 5 years.

Results: The study comprised of 25 patients, made of 16(64%) males and 9(36%) females
(M:F = 1.7:1). The age ranged between 6months and 80years, mean of 32.1years
(SD=16.38), with peak presentation seen in the 30-40years age group. Bell’s palsy 13(52%),
road traffic injury 5(20%) and chronic suppurative otitis media 3(12%) are the
commonest cause. The others are stroke 2(8%), measles infection 1(4%) and middle ear
tumor 1(4%). Spontaneous recovery was observed
in 40%.

Conclusion: Bell’s palsy was the commonest cause of facial nerve palsy, however
aetiologies cut across all age groups. male slightly more affected. This serves as data base
for clinical evaluation of facial palsy in our environment.

Introduction

Facial nerve paralysis is a common clinical
entity to the otolaryngologist. It can affect
all age groups but most frequently seen
between 20 to 50 years with equal sex
distribution1. Incidence is around 30 cases
per 100,000 per year, slightly higher in
pregnant women (45 per 100,000).2 The
patient who suffers with facial paralysis
experiences not only functional
consequences but also the psychological
impact of a change in self-image and
impaired communicative ability3. Aetiology
include Trauma e.g. fractures of skull base,
haematoma after acupuncture3, HIV4
Inactivated Intranasal Influenza Vaccine5 -
although this has been disputed6. The aim of
this paper is to highlight the aetiologic
profile of facial nerve palsy in our
environment as there is paucity of data on this.

Methods

This was a retrospective review of patients
with facial nerve palsy seen in the Ear, Nose
and Throat clinic over a five year period
through 2001to 2005. The hospital chart
records of all the patients were retrieved and
analyzed for biodata, clinical features,
diagnosis and treatment outcome using the
SPSS version 11 computer soft ware.

Results

The study population was comprised of 25
patients, made. Sixteen (64%) males were
males and 9 (36%) females (M:F = 1.7:1.0).
The age ranged between 6 months and 80
years with a mean of 32.1years (SD=16.38).
The peak was in the 30-40 years age group.
Table 1 shows the aetiological factors.
Bell’s palsy accounted for 13 (52%), road
traffic injury for 5 (20%) and chronic suppurative otitis media for 4(12%) of the
cases. The majority of patients belonged to
social class II 6 (24%) and V 6 (24%). The
right side was involved in 13(52%) and left
side in 12 (48%) of the patients. Lower
motor neuron lesions were seen in 22 (88%)
while upper motor neuron lesion accounted
for 3 (12%). , A total of 71% of the patients
with Bell’s palsy had history of unilateral
facial rashes. Recovery was observed in 10
(40%) of the patients.
Table 1. Aetiology of Facial Nerve palsy

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bell's Palsy</td>
<td>13</td>
<td>52</td>
</tr>
<tr>
<td>Road Traffic Injury</td>
<td>05</td>
<td>20</td>
</tr>
<tr>
<td>Chronic Suppurative Otitis Media</td>
<td>03</td>
<td>12</td>
</tr>
<tr>
<td>Stroke</td>
<td>02</td>
<td>08</td>
</tr>
<tr>
<td>Middle ear Tumor</td>
<td>01</td>
<td>04</td>
</tr>
<tr>
<td>Measles</td>
<td>01</td>
<td>04</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

Discussion

This study has found Bell’s palsy to be the commonest aetiological factor of facial nerve palsy. In their study, Hassan et al\(^1\) found Bell’s palsy to accounted for 28% and peak age of presentation was 40 years\(^1,7\). In our study, 71% of the patients with Bell’s palsy had history of unilateral facial rashes which was suggestive of herpes simplex virus type 1 infection\(^1,2,3,4,7\). However, we had no laboratory confirmation. Road traffic injury ranked 2\(^{nd}\) with a prevalence of 20%. It was the predominant causative factor in the younger age group. Skull base fracture is one of the most frequent causes of injury to the facial nerve\(^1,7,12\). A high index of suspicion of facial nerve palsy should be entertained in cases of temporal bone fracture for early detection and prompt management. The others anatomical pathology resulting in facial palsy includes haematoma in the middle ear or traumatic inflammation with oedema compressing the nerve or neuropraxia\(^1,13\). Despite the high prevalence of otitis media in our environment, infective cause of facial nerve palsy due to chronic suppurative otitis media was seen in only 3 of our cases.. This could be due to early presentation of the patients once discharge in the ear is noticed as it constitutes a social nuisance irrespective of the sex\(^14\). Facial nerve injury affect all social class as in our finding it cut across all the socioeconomic classes compared to chronic suppurative otitis media which is common among the lower socioeconomic class\(^14\).

Most of our diagnosis was based on history and clinical examinations, although the management could be enhanced by the contemporary radiodiagnostic and electrophysiologic tests which are not readily available in our practice. Similar to other reports\(^15, 16\), our studies have found patients across all ages from 6 months to 80 years. The palsy observed in the 6 months old child was found to follow measles infection\(^1\). Our study showed male preponderance as against gender equality documented in literature\(^15\).

Conclusion

Bell’s palsy was found to be the commonest cause of facial nerve palsy, followed by trauma. Spontaneous recovery in 40%. This may serve as a data base for clinical evaluation of facial palsy in our environment.

Reference


7. Tiemstra JD, Khatkhate N, Bell’s Palsy: Diagnosis and Management. Am Fam Physician 2007;76: 997-1002,


