

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 ability² 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 2001 to 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

Diagnosis	Frequency	Percentage
Bell's Palsy	13	52
Road Traffic Injury	05	20
Chronic Suppurative Otitis Media	03	12
Stroke	02	08
Middle ear Tumor	01	04
Measles	01	04
Total	25	100

Discussion

This study has found Bell's palsy to be the commonest aetiological factor of facial nerve palsy. In their study, Hassan et al¹ found Bell's palsy to account 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 2nd 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 other 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 sex¹⁴. Facial nerve injury affects all social classes as in our finding it cut across all the socioeconomic classes compared to chronic suppurative otitis media which is common among the lower socioeconomic class¹⁴.

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 infection¹. Our study showed male preponderance as against gender equality documented in literature¹⁵.

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 data base for clinical evaluation of facial palsy in our environment.

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