Pattern of Ptosis in Kano North-West Nigeria

Lamina S[1] and Hanif S[2]

1 Physiotherapy Department, Faculty of Medical Sciences, Jimma University, Jimma ,Ethiopia. E-mail: siklam_86@yahoo.co.uk,
2 Department of Physiotherapy, Murtala Mohammad Specialist Hospital, Kano, Nigeria, E-mail: shelllshelll@yahoo.com

Abstract

Objective: Epidemiological data on ptosis are generally lacking in the developing nations. The aim of this study was to assess the seven years pattern of ptosis in a Nigerian Specialist Hospital, Kano North-West Nigeria.

Method: The records of patients' diagnosis as ptosis between 2000 and 2006 were scrutinized. Data such as age, sex, cause, socioeconomic status, side of ptosis and management were obtained.

Result: A total number of 104 patients were recorded. High prevalence was found as follows: male 102(65.4%); right side (61.5%); trauma (RTA) (60.9%); civil servants (38.5.8%) and age group: 51-60 years (25.6%).

Conclusion: It was concluded that trauma from road traffic accident (RTA) is the major aetiological factor and the right side mostly affected.

Recommendation: It is recommended that surgical training and facilities for ptosis correction is off priority.

Key Words: Ptosis, Paralysis, orbital muscles,

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Introduction

Ptosis is the excessive drooping of one or both upper eyelids. This sign can be constant, progressive, or intermittent and unilateral or bilateral. When it's unilateral, it's easy to detect by comparing the eyelids' relative positions. When bilateral or mild, it is difficult to detect — the eyelids may be abnormally low, covering the upper part of the iris or even part of the pupil instead of overlapping the iris slightly. Other clues include a furrowed forehead or a tipped-back head — both of these help the patient see under drooping lids. With severe ptosis, the patient may not be able to raise his eyelids voluntarily[1].

Ptosis due to third cranial nerve and sympathetic nerve palsy is usually unilateral, unless a situation occurs whereby the nerves on both sides of the body are paralysed at the same time. Other causes might be due to injury, diabetes, tumour, Horner's syndrome, ophthalmoplegia, inflammation or aneurysms. Bilateral ptosis is often due to myasthenia gravis, myoneural junction disease, such as botulism, primary disease of the muscles with muscular dystrophy and congenital ptosis [2, 3].

Many people want to correct ptosis because it damages their appearance, in most cases, the sagging upper eyelid results in a loss of the superior (upper) field of vision. Generally, literature seems scanty on the prevalence of ptosis and there have been no study on the prevalence and aetiology of ptosis in Nigeria. Therefore, the purpose of this study was to determine the prevalence and aetiology of ptosis in a Nigerian Specialist Hospital.

Correspondence:
Lamina S
Physiotherapy Department, Faculty of Medical Sciences
Jimma University, Jimma ,Ethiopia.
E-mail: siklam_86@yahoo.co.uk

Patients/Methods

This study was conducted in Murtala Mohammad Specialist Hospital (MMSH), Kano, North-West Nigeria. The hospital has been the hospital serving patients from both metropolitan and rural areas as well as some neighboring states (Bauchi, Jigawa, Katsina and Kaduna). It also serves as a referral centre for other government hospitals and private health units within and outside the state.

Records of patients diagnosed with ptosis during the period of seven years (2000-2006) were obtained from the statistical unit of the medical records of the hospital. Data collected from the patients' files included: age, sex, aetiology of ptosis, side of ptosis, socioeconomic status (occupation), treatment and referral for physiotherapy. Descriptive analysis was used to analyze the data.

Results

A total of 156 ptosis patients were recorded between year 2000 and 2006. One hunred and two (65.4%) were males, 96 (61.5%) had right sided ptosis, 56 (34.6%) had left sided and 6 (3.9%) had bilateral ptosis. The major

aetiological factor 95 (60.9%) was trauma sustained in road traffic accident (RTA) followed by ophthalmoplegia 34 (21.8.6%) and 15 (9.6.8%) was as a result of diabetes mellitus (table 1).

Table 1: Aetiological distribution of ptosis during the period 2000-2006 (N=156)

Socioeconomic status	*No (%)*
Civil servant	60 (38.5)
Student	42 (26.9)
Trader	17 (10.9)
Farmer	13 (8.3)
Full house wife	10 (6.4)
Unemployed	8 (5.1)
Undercare	6 (3.9)
Total	156 (100)

The result showed an increase with age, the age groups of the patients as recorded were as follows: ≤ 1 year (3.9.0%), 1-10 years (2.6%), 11-20 years (5.8%), 21-30 years (19.2.0%), 31 – 40(20.5%), 41 – 50(22.4) and 51-60 years (25.6%). The prevalence of ptosis as shown in table 2 was highest among civil servants (38.5%) followed by students (26.9%), while under care was the least (3.9%).

The result showed a steady increase in the prevalence of ptosis from 2000,2(1.3%); 2001,8 (5.1%); 2002,13(8.3%); 2003,19(12.2); 2004,25(16%); 2005 39(25%) and 2006,50(32.1). The major treatment given to the patients was chemotherapy (100%) while about 90% were referred for physiotherapy. None of the cases recorded were referred for surgery, also ophthalmic crutches were not available neither were they prescribed.

Table 2: Socioeconomic status and incidence of ptosis (N=156)

Aetiology	*No (%)*
Trauma (RTA)	98 (60.9)
Ophthalmoplegia	34 (21.8)
Diabetes	15 (9.6)
Congenital	5 (3.2)
Hypertension	2 (1.3)
No specific aetiology	5 (3.2)
Total	156 (100)

Discussion

The study revealed increased prevalence of ptosis with age; this is in agreement with the finding of Sridharan *et al* [4]. The increased prevalence of ptosis with age in the present study could be linked to the study carried out by Charlotte and Stuart[5] which states that the susceptibility of chronic diseases increase with age; this increase is a reflection of both physiological changes and cumulative environmental and genetic risk factor exposure. Results of the present study also showed that males have higher incidence of ptosis. Ducasse et al[6] in their study also reported a male sex predominant in congenital, levator disinsertion or idiopathic ptosis. Trauma (RTA) was recorded as the highest aetiological factor in Nigeria. The work of Sridharan et al [4] revealed a contrary report. They reported mechanical injury as the main aetiological factor of ptosis in Manchester (England). In the present study, the incidence of ptosis was highest among civil servants followed by students; also, the highest incidence of ptosis was recorded in the year 2006.

The reasons for high incidence of ptosis in males, civil servants, students and in the year 2006 may be linked to the high incidence of traumatic ptosis in RTA which could be as a result of annual increase in the number of commercial motor cyclists popularly called "Achaba" or "Okada" in Nigeria specifically Kano city transport system. These categories of people (students, civil servants and males) are the most mobile and most patronize of these commercial motor cyclists for transportation than any other group.

The present study revealed high incidence of unilateral ptosis (96.2%); this concur with the report of Sridharan et al [4], they reported about 61% unilateral ptosis in Manchester. The high incidence of right ptosis reported in the present study may be attributed to the fact that most people are right handed and there is high possibility for the right handed persons to fall on the right side/head in RTA or any incidence of fall.

Doctors as found out in this study referred most of the patients for physical therapy. Reasons for their referral may have no literature backup, because presently there is dearth of data on physical therapy management of ptosis but their referral could be link to physical therapy management of related condition(Bell's palsy[5,7,8]). They found it logical to refer similar paralysis (ptosis) for physical therapy. Also, after a long term drug prescription all to no avail coupled with unavailability of facilities for surgery and ptosis crutches within the country and the cost of management abroad may be too enormous for the patient, they found it

reasonable to leave the patient to the mercy of physical therapy.

Conclusion

The conclusion of the present paper was that, trauma as a result of road traffic accident (RTA) was the major cause of ptosis in Nigeria. Also, that civil servants and students; males, age group 51 – 60 years were mostly affected. The incidence of ptosis was highest in year 2006, mostly unilateral and right sided.

Recommendation

The recommendation of the present paper was that government, healthcare policy makers and managers should make surgical training and facilities for ptosis management a priority. The legislation on RTA protective (head helmets, etc) measures for motorcyclists should be intensified and enforced. Also, those involved in the management of ptosis should initiate the development of non- invasive management such as locally improvised ptosis crutches.

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