THE PREVALENCE OF NASAL TRAUMA IN UCH,IBADAN - NIGERIA.

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ABSTRACTS

OBJECTIVE: Nasal trauma is commonly seen in head and neck injuries involving the face, this is because of its facial prominence antero-posteriorly.

The objective of this study is to determine the prevalence of Nasal Trauma, assess the various aetiological factors and pattern of injuries.

METHODS:- A one year prospective study of Nasal trauma at the University College Hospital, Ibadan, Nigeria.

RESULTS: A total of one thousand three hundred and fifty patients (1,350) with all forms of trauma presenting at UCH, Ibadan during the study period were included. Nasal trauma alone or in association with other injuries was found in 145 (10.7%) of the patients. There were 108 males and 37 females (M:F.3:1) and the peak age group affected was found to be 20 29 years.

Vehicular road traffic accidents was found to be the highest cause of nasal trauma 53.1% (77.0) followed by pedestrian road traffic accidents with 15.9 (23.0). Nasal soft tissue injury was commoner, 89.0% (129.0) than the skeletal frame-work (bones and cartilages), 11.0% (16.0)

INTRODUCTION

The nose being the most prominent part of the face is easily traumatized in facial injuries. This has been found to be commoner in Caucasians than in Asians or Africans[1]. This is because in the Caucasians, the nose is the most prominent feature of the face in the antero-posterior direction as opposed to the squat nose in Africans or the Asians.

Trauma to the nose may either involve the soft tissues (skin and mucosa) alone or with the Nasal Skeletal frame-work (bones and cartilages). However involvement of the surrounding structures is not uncommon[2]. Depending on the severity and direction of the inflicting force, severe trauma to the nose has been further classified into type I (Chevallet) fracture, type II (Jajavay) fracture and type III (Naso-orbito-ethmoid) fractures[3].

Nasal trauma in children merit special attention, this is because mild deformities when left untreated are accentuated by further nasal growth[4,5,6].

The aim of this paper is to determine the prevalence of nasal trauma, to assess the various etiological factors of nasal trauma and to determine the pattern of injuries.

PATIENTS AND METHODS

The study was a hospital based prospective study carried out at the University College Hospital Ibadan, within a period of one year (April 2000 to May 2001).

All trauma cases presenting at the Accident and Emergency Units, Maxillofacial Outpatient Clinics and Ear, Nose and Throat (E.N.T) Clinics were studied and those with nasal trauma were determined.

A questionnaire was administered to each of the patients who were found to have nasal trauma after an informed consent had been taken. Information from patient relatives or eye witness accounts was considered in patients with associated severe head injury, and findings on clinical assessment were documented. General examination and a detailed ear, nose and throat examination was carried out on all patients found to have nasal trauma.

Patients were classified using occupation as social strata according to the classification of occupation by the office of the population census and survey[7]:

i. Professionals
ii. Intermediate
iii. Skilled workers
iv. Semi-skilled workers
v. Unskilled workers

The data was analysed using simple statistical means.

RESULTS

A total of 1,350 trauma cases were seen in the Accident and Emergency Department, Ear, Nose and Throat and Maxillofacial Outpatient Clinics of the University College Hospital Ibadan during the study period. Nasal trauma alone or in association with other injuries was found in 145 patients out of these trauma cases, giving a prevalence rate of 10.7%.

There were 108 males and 37 females, the age ranging between 8 months to 80yrs. (M:F = 3:1) with a mean age (SD) of 28.5(± 15.28)yrs,. The peak age group affected was found to be 20 29yrs (fig 1).

Majority of cases of nasal trauma were caused by vehicular RTA 53.1% while pedestrian RTA constituted 15.9% (table 1).

Soft tissue injury involving the nasal skin and mucosa were found in 89.0% of the patients, while skeletal injury involving the bony and cartilaginous frame-work of the nose constituted 11.0% (Table II). In addition to the nasal trauma, 35.8% (52) of the patients were found to have associated injuries which include, head and neck, limbs and trunk.

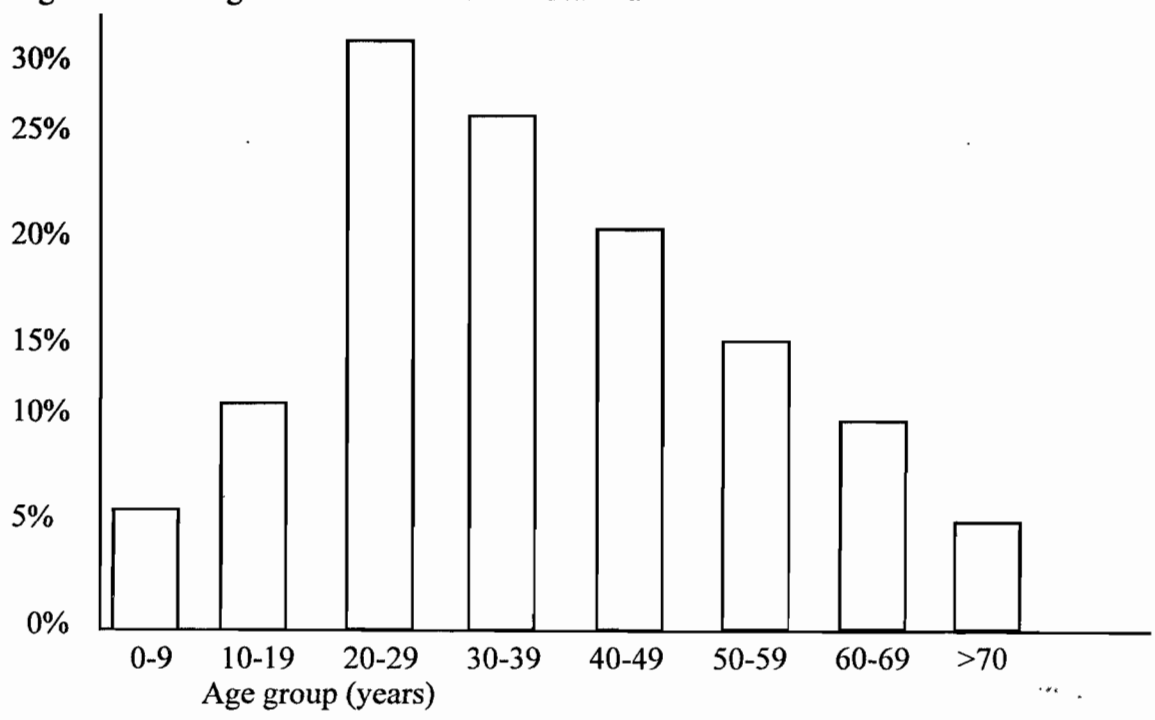
TABLE I: CAUSES OF NASAL TRAUMA

CAUSE		%	(N)
- RTA			
	Vehicular	53.1%	(77)
	Pedestrians	15.9%	(23)
- Personal accident		15.9%	(23)
- Assault		9.7%	(14)
- Sports accidents		2.7%	(4)
- Industrial Accidents		2.7%	(4)

TABLE II: Types of Nasal Trauma

Types	N = %	(145)
- Soft tissue	89%	(145)
- Skeletal	11%	(16)

Fig. I: Age Distribution of Nasal Trauma



DISCUSSION

In this study the prevalence of nasal trauma in the University College Hospital, Ibadan was 10.7% unlike in Caucasians, with a prevalence of 28%[8]. This prevalence rate may be attributed to the squat-like appearance of the nose in blacks. This finding is similar to that of Murray[8], where nasal trauma constitutes about 10% in the nigroes.

The commonest aetiological factor of nasal trauma was vehicular road traffic accidents. This is in contrast to the findings of Murray, with assault as the leading cause of nasal trauma[2].

The findings of low prevalence rate of 10.7% as compared to 28.0% of Caucasians may be due to the fact that, unlike in the developed world where traffic regulations are strictly enforced and constantly monitored by the law enforcement agents, such is not practically obtained in Nigeria. Driving in our environment is more or less considered a fashion and a status symbol. In Western Nigeria alone, on the average about 20 road traffic accidents occur daily with about 30 injured and 5 fatalities[9].

Assault and sports injuries accounted for 9.7% and 2.7% of nasal trauma respectively . This finding contrasts to the report by Murray et al[2] in which assault was the leading cause of nasal trauma followed by sports injuries. These findings may be attributed to the fact that less cases of assault with nasal trauma report to our hospitals for medico-legal reasons and litigation. The unavailability of risky Sports like Ice-hockey, Skiing, and the incorporation of medical team in sports clubs may account for the low frequency of sport injuries in this study.

Nasal trauma has been found to be commoner among the age group 20 29yrs, this is followed by the age group 30 39yrs. These age groups are the most economically productive and were the most commonly involved in road traffic accidents[10].

Soft tissue injury constituted 89% while injury to the skeletal frame-work of the nose constituted 11.0%, of which bony injuries were 4.8% and cartilaginous injuries 6.2%. This is similar to studies by Murray et al[8] and Murray et al[2], where out of 756 cases of nasal trauma, 79% had soft tissue injury. Some patients had more than one tissue planes involved and 25.8% had associated injuries in addition to nasal trauma.

It is thus recommended that all trauma patients with head and neck involvement should have full Ear, Nose and Throat examination, and graphic documentation of nasal deformities should be included in the patients records. This is to enable early surgical intervention where necessary so as to avoid the long term sequelae of nasal deformity.

The enforcement of traffic regulations should be more practical than what is presently obtained, , so as to reduce the prevalence of road traffic accidents in our environment.

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