Retrospective analysis of oral and maxillofacial surgery cases in a sub-urban centre in southwest Nigeria: scope and limitations.

Akinmoladun V I

Oral-Dental Health Centre, State Specialist Hospital,
Akure, Ondo State, Nigeria.

Correspondence: **Akinmoladun V I**
E-mail: viakinmoladun@yahoo.com

Abstract

Objective: Oral and maxillofacial surgery is a surgical sub specialty whose scope is widening by the day. However, in Nigeria, the practice has been mostly urban with centres usually in tertiary health institutions. This study was carried out to review the scope of work in a semi urban centre providing service for an entire south western state and environ in Nigeria, and to highlight limitations.
Method: This was a retrospective study conducted at the Oral Dental Health Centre, Akure, Ondo state, Nigeria covering the period September, 2000 and April, 2004. Data including age, sex, diagnosis and treatment were obtained from the clinic record books, theatre book and patients record files.
Results: A total of 151 cases were seen within the study period. There were 90 males and 61 females with a male to female ratio of 3:2. The age range was between 3 days and 65 years and a mean of 38.5 years. The peak age of patients were in the second and third decades of life (n=65, 43%). The cases seen were classified into 6 broad groups namely: Orofacial tumours (n=43, 27.2%), Cysts (n=14, 9.3%), Fracture/trauma (n=41, 27.2%), Salivary glands (n=7, 4.6%), Temporomandibular joint diseases (n=11, 7.3%), Congenital malformation (n=10, 6.7%), Orofacial infections (n=13 8.6%) and Others (including neuralgia, leukoplakia n=12, 7.9%). Out of 151 cases seen, only 84 (55.6 %) received one form of treatment or the other, the remaining were either referred to other centers or failed to attend after initial consultation and assessment.
Conclusion: A wide variety of cases were seen but socioeconomic, human resource and infrastructural problems limited the scope of practice.

Keywords: Oral and maxillofacial surgery, sub-urban centre, Nigeria

Introduction

Oral and Maxillofacial Surgery is a surgical subspecialty that deals with (amongst others) the management of orofacial tumours, infections, facial trauma, surgical conditions of the temporomandibular joint (TMJ), diseases of the salivary glands and the reconstruction of congenital and acquired orofacial defects. The specialty may have come into existence during the world wars as a result of massive orofacial injury resulting from weapons of warfare, however as from 1960, with medical education, surgical exposure and training came a new crop of surgeons who took up the challenge of more extensive surgical operations including both ablative and reconstructive surgery[1,2].

However, the Nigerian civil war of 1966 marked the beginning of serious maxillofacial surgery in Nigeria[2]. As the specialty developed worldwide, the frontiers of areas of its anatomic coverage widened. The specialty and the scope of work done by the practitioners have however remained largely unknown[3-4], with centres usually in tertiary hospitals often in large cities.

The aim of this study was to present a personal experience in a semi-urban State Specialist Hospital, providing Maxillofacial surgical services to an entire state of over 2.2 million people and other neighbouring states. This is against the backdrop of the fact that no such service existed in the state before the period under review, due to the already established fact that the specialty is still not well recognized by the patients, public and health administrators alike. There were also the general constraints of funding and financial handicap existing in a community that was largely agrarian and having a large civil servant population.

Method

This was a retrospective study conducted at the Oral Dental Health Centre, Akure, Ondo state, Nigeria covering the period September, 2000 to April, 2004. Data including age, sex, diagnosis and treatment of disease conditions were obtained from the clinic record books, theatre book and patients' record files. Tumour-like lesions that were not histologically diagnosed due to failure of patient to follow the treatment plan were excluded. Also facial injuries treated under Local Anaesthesia (LA) in the casualty unit were excluded from the study due to the poor state of the records.

Results

A total of 151 cases were seen within the study period. There were 90 males and 61 females with a male to female ratio of 3:2. The age range was between 3 days and 65 years and a mean of 38.5. The peak age of patients were in the second and third decades of life (n=65, 43%). The cases seen were classified into 6 broad groups (Table 1) namely Orofacial tumours (n=43, 28.5%), Cysts (n=14, 9.3%), Fracture/trauma (n=41, 27.2%), Salivary gland diseases (n=7, 4.6%), Temporomandibular joint diseases (n=11, 7.3%), Congenital malformations (n=10, 6.7%), Orofacial infections (n=13, 8.6%) and Others (including neuralgia, leukoplakia n=12, 7.9%). Out of 151 cases seen, only 84 (55.6 %) received one form of treatment or the other, the remaining were either referred to other centers or failed to attend after initial consultation and assessment. Among those who were treated, 15 cases representing 17.9% were treated under endotracheal general anaesthesia while others received LA or conservative (non surgical) intervention such as analgesia and physiotherapy.

Discussion

Though the centre where this study was conducted was largely sub-urban, it served as a referral centre for a state, and a wide variety of cases of oral and maxillofacial diseases were seen during the period under review. Among the presenting orofacial tumours, odontogenic types had the highest number with ameloblastoma having the highest frequency of occurrence. This finding is in line with previous reports [5-9].

Facial trauma in Nigeria has been widely reported [10-12], it accounted for 27.2% of cases in this series, with mandibular fractures leading the group. Motor cycle road traffic facial injury has become more common, though the exact contribution to the findings here could not be ascertained.

There were 10 recorded cases of clefts of lip and palate, with patients presenting between 2 days and 15years. However, only 3 of the patients (aged 9, 11 and 15) had surgery which was carried out under local anaesthesia. This was partly due to financial reasons as well as dearth of anaesthetic manpower at the centre. It was common for the father of the cleft patient to be uninterested in the care of the patient, living the mother to sort out 'her strange child'.

There were seven cases of TMJ dislocation within the period under review, all but one were reduced manually. The only chronic case that could not be reduced was referred to another centre for possible surgical intervention. Two cases of necrotizing fasciitis were recorded, both survived with aggressive antibiotic therapy and debriment. No co-morbid factors were identified in both patients.

No reconstructive surgery was done after ablative surgery and prosthetic rehabilitation was often inadequate, hampered by limited facilities and expertise. Other reasons for less than optimum patient management were poor state of facilities for general anaesthesia and non availability of support by other relevant specialties needed in the multi disciplinary approach needed for adequate patient care.

Due to these prevailing difficulties, most cases were first considered for treatment under local anaesthesia even when it was not ideal; all but two cases of mandibular fractures, two cases of midface fracture and all cases of zygomatic fractures were treated under local anaesthesia.

Late presentation was a common occurrence, as is often the case in this part of the world [13, 14], with gross facial disfigurement regularly seen (Figure 2). This was partly due to financial difficulties, the belief system that sees the 'enemy' behind every problem and logistics.

The literature is replete with reports on rural and sub-urban surgical service in Nigeria [15-17], these studies were however done in centres that functioned as rural stations for Teaching Hospitals; to the best of the author's knowledge this is the first attempt at reviewing semi urban Oral and Maxillofacial Surgery in Nigeria, thereby making comparisons between this study and those referred difficult.

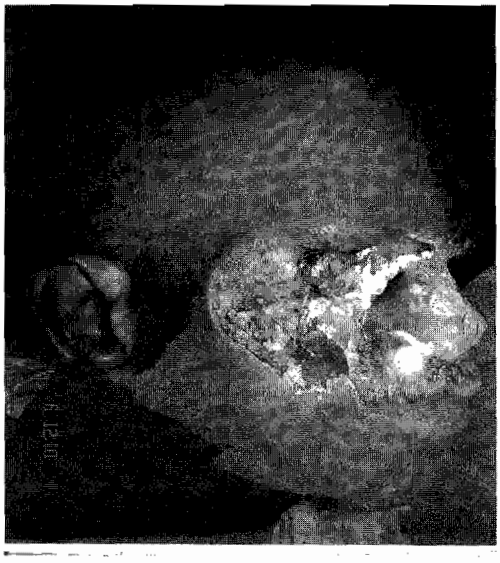
Table 1. Types and frequencies of cases seen

Condition	Frequency	% of Total
Orofacial tumours		43 (28.5%)
Ameloblastoma	26	
Fibro osseous lesions	5	
Squamous cell carcinoma	4	
Osteogenic sarcoma	1	
Burkitt's lymphoma	5	
Oral lipoma	2	
Cysts		14 (9.3%)
Gingival cysts	4	
Dentigerous cyst	5	
Odontogenic keratocyst	1	
Branchial cyst	2	
Cystic hygroma	1	
Sebaceous cyst	1	
Fracture/Trauma		41(27.2%)
Mandible	20	
Maxilla	4	
Dentoalveolar	8	
Zygoma	5	
Facial gunshot injuries	3	
Machete facial cuts	1	
Salivary gland		7(4.6%)
Pleomorphic adenoma	2	
Submandibular gland sialadenitis	3	
Ranula	2	
TMJ		11(7.3%)
Dislocation	6	
Ankylosis	2	
Dysfunction	3	
Congenital malformations		10(6.7%)
Cleft lip	5	
Cleft palate	2	
Cleft lip and Palate	3	
Orofacial infections		13(8.6%)
Ludwig's angina	1	
Necrotizing fasciitis	2	
Osteomyelitis	9	
Cancrum nasalis	1	
Others		12(7.9%)
Total		**151(100%)**

Conclusion

The practice of the specialty outside the urban areas and tertiary institutions in Nigeria appears largely rudimentary, with scope being rather limited. This is not unconnected with inappropriate referral of the maxillofacial patients.
The prevailing circumstances often lead to delay in diagnosis and subsequently treatment. The referral rate to other centres was also considered high for same reasons.
If the findings presented here represent the picture in most semi urban centers in Nigeria, a lot would have to be done through awareness and education of the public, health care administrators and the referring practitioners to improve the situation.

Figure 1. A destructive lesion involving the right midface, antrum, lateral wall of the nose and the orbit in an other wise fit elderly man.



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