

The prevalence of medical conditions among patients attending oral and maxillofacial clinic at a secondary and a tertiary health institution in Lagos, Nigeria

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ABSTRACT

This study was conducted to estimate the prevalence of self reported medical condition among patients attending oral and maxillofacial clinic at the dental center of General Hospital Lagos and Lagos University Teaching Hospital. Methods and Materials: 1584 patients completed self reported questionnaire with the assistance of the dental surgeon. Information obtained from the patient includes age, gender, marital status, educational status and occupation. Patients were asked to provide a yes or no answer about specific medical conditions including gastro intestinal disease, respiratory disease, anaemia, hypertension, diabetes mellitus, kidney problems, hepatic diseases, epilepsy, bleeding disorders ,HIV/Aids and cardiovascular disease. Descriptive and comparative analysis were done using SPSS Windows statistical software package (Version 14.0 SPSS Inc, Chicago IL). A total of 1584 patients were consecutively selected in the study. 825 (47.9%) were females and 759 (52.1%) male with ratio 1:1.2. Their age ranged between 3 and 96 years with a mean 35.59 ± 15.9 years. Hypertension 91 (5.7%) was the most prevalent reported medical condition followed by allergic condition 63 (3.9%), Diabetes mellitus 28 (1.7%) and gastro intestinal diseases 23 (1.4%). Only 12 patients (0.8%) of the participants reported having antibiotics coverage for the underlying condition that needed antibiotic coverage on presentation and 30(1.8%) of the patients were on regular medication for the underlying medical condition. Our study has revealed the importance of adequate history taking, which will not only result in modifying dental treatment but, most importantly, will lead to identifying patients with underlying medical condition and instituting appropriate management.

Keywords: Oral, maxillofacial, Lagos, General hospital

INTRODUCTION

In the past, the simple question "Are you generally in good health?" provided the information necessary to proceed with dental treatment¹. Today dentists and physicians need to know more about past and present medical conditions of their patient because of the proliferation of conditions that complicates dental treatment and to improve the standards of medical and dental practice in general¹⁻⁷.

Dental treatment may affect and be affected by systemic conditions that are varied and plentiful^{1-4, 6-8}. Identifying systemic illness is very important to the safety of the patient²⁻⁴. The success of treatment depends on the information about patient's health status and the medication they are receiving since most drugs used have a broader range of action as well as serious interactions^{4,7}.

Taking a careful medical history before any type of dental treatment from each patient attending the oral and maxillofacial clinic is vital and mandatory to proper patients care⁴⁻⁵. Oral care is an integral part of medical care⁶. This is particularly apparent when the patient seeking oral health care presents with systemic illness or disability⁶.

It is becoming an increasingly larger responsibility for the dentist and other oral health care professional to identify with systemic diseases, compromising conditions and disabilities that have an impact on, and can be impacted by oral health treatment^{4,6-7}. Although this situation is easily stated, the ability to practice dentistry properly within the context of the larger health care system is a challenge for the dental practitioner^{4,6}.

Most treatment of oral diseases involves invasive procedures and pharmacotherapeutic agents. Examples of patients for whom medical histories modify their cases include the use of local anaesthesia with vasoconstriction for dental patients with compromised cardiovascular conditions, invasive dental procedures that induce temporary bacteremia and increase the risk of patients' susceptibility to infections of endocardium or patients who have prosthetic replacements⁸.

This study was conducted to estimate the prevalence of self-reported medical conditions among patients attending oral and maxillofacial clinic at patient attending the oral and maxillofacial clinic at a Secondary and a Tertiary Health Institution.

METHODS AND MATERIALS

This prospective study was conducted at the Dental Center of General Hospital Lagos and Lagos University Teaching Hospital, between February and August 2008. The data were collected through a self-reported questionnaire complete by the dentist with the cooperation of the patients. The study population was composed of consecutive patients presented at the oral and maxillofacial clinic during the study period.

All patients conveyed informed consent for participation in this study. The questionnaire included information of age, gender, marital status, educational level and occupation. The patients were asked to provide a Yes or No answer to questions about specific medical conditions including gastrointestinal disease, respiratory disease, hypertension, diabetics mellitus, kidney problems, hepatic disease, Epilepsy, bleeding disorders, HIV,Aid and Cardiovascular diseases. In addition patients were asked to provide information on the drugs used for any underlying medical conditions.

Data was analysed using the SPSS for Windows (Versions 14.0; SPSS Inc. Chicago IL) statistical software package; and presented in descriptive and tabular forms.

RESULT

A total of 1584 patients were consecutively selected on the study of this, 825 (51.8%) were males and 759 (48.2) were females. Their ages ranged between 3 and 96 years with mean 35.59 ± 15.9 years. Table 1 summarises the demographic data of patients that

participated in the study. 241(15.2%) presented with medical condition; Hypertension 91(5.7%) was the most prevalent medical condition. Allergic conditions was next 63 (4.0%), Diabetes mellitus 28 (1.7%) followed by gastrointestinal diseases 23(1.4%).Table 2

Generally, 12(0.8%) of the participants reported having antibiotic coverage for underlying condition that needed antibiotic coverage on presentation at the clinic. Only 30 (2.0%) of the patient were on regular medication for the underlying condition. Hypertension and Gastrointestinal disorders were more prevalent among females. In contrast diabetics mellitus and allergic conditions were more prevalent among males.(Table 2)

All the diseases entities were more prevalent among patient of 20years and above. For all medical conditions in question, the prevalence was significantly different between all age groups as shown in Table 3.

Table 1. Demographic data Of patient attending the oral and maxillofacial clinic at a secondary and a Tertiary Health Institution.

VARIABLES	N (%)
AGE (YEARS)	
<20	170 (10.7)
20 – 40	964 (60.9)
>40	450 (28.4)
GENDER	
Male	825 (52.0)
Female	759 (48.0)
TOTAL	1584 (100)
EDUCATIONAL LEVEL	
Illiterate	107 (6.8)
Primary school	246 (15.5)
Secondary school	569 (35.9)
Post secondary	662 (41.7)
TOTAL	1584 (100)

Table 2. Prevalence of medical condition among patient attending the oral and maxillofacial clinic at a secondary and a Tertiary Health Institution in Lagos.

	MALE		FEMALE		TOTAL	
	N	%	N	%	N	%
Gastrointestinal Disease	6	(0.3)	17	(1.0)	23	(1.4)
Bleeding Tendencies	3	(0.1)	3	(0.1)	6	(0.3)
Renal Diseases	1	(0.6)	1	(0.6)	2	(0.1)
Respiratory Diseases	4	(0.2)	8	(0.5)	12	(0.7)
Hypertension	35	(2.2)	56	(3.5)	91	(5.7)
Diabetes Mellitus	17	(1.0)	11	(0.6)	28	(1.7)
Hepatic Disease	3	(0.1)	4	(0.2)	7	(0.4)
Neurological	1	(0.06)	3	(0.1)	4	(0.2)
Allergy	37	(2.1)	26	(1.6)	63	(3.9)
HIV	0	(0.0)	3	(0.1)	3	(0.1)
None	718	(45.3)	627	(42.1)	1345	(60.7)
TOTAL	825		759		1584	

Table 3. Prevalence of medical conditions among patients attending Oral and maxillofacial clinic at a secondary and a Tertiary Health Institution.

	<20		20 – 40		>40		P (value)
	N	(%)	N	(%)	N	(%)	
Gastrointestinal Disease	0	(0.0)	21	(1.3)	2	(0.1)	0. 000
Bleeding Tendencies	0	(0.0)	6	(0.3)	0	(0.0)	0. 000
Renal Diseases	0	(0.0)	2	(0.1)	0	(0.0)	0. 000
Respiratory Diseases	2	(0.1)	10	(0.6)	0	(0.0)	0. 000
Hypertension	0	(0.0)	36	(2.2)	55	(3.4)	0. 000
Diabetes Mellitus	1	(0.6)	5	(0.3)	22	(1.3)	0. 000
Hepatic Disease	1	(0.0)	4	(0.2)	2	(0.1)	0. 000
Neurological	0	(0.0)	4	(0.2)	0	(0.0)	0. 000
Allergy	4	(0.2)	43	(2.7)	16	(1.0)	0. 000
HIV	0	(0.0)	3	(0.1)	0	(0.0)	0. 000
None	162	(10.2)	830	(52.4)	353	(22.3)	0. 000

Pearson chi square $\chi^2 = 20$

P=0.000

DISCUSSIONS

The concept of taking a medical history, before any dental treatment is vital and mandatory for proper patients care. This study was carried out to assess the prevalence of certain medical conditions among dental patients attending the oral and maxillofacial clinic at the General hospital, Lagos and Lagos University Teaching Hospital. The result of the present study indicates hypertension to be the leading medical conditions, followed by allergic condition, Diabetes mellitus, gastrointestinal diseases and hepatic diseases as shown in Table 2

The study was in agreement with many previous authors^{8-10, 13, 14}. Our study is not in consonant with khader et al² which reported gastrointestinal diseases as the leading medical condition from their study.

The result of the present study indicates hypertension to be the leading medical conditions, followed by allergic condition, Diabetes mellitus, gastrointestinal diseases and hepatic diseases as shown in Table 2.

Epidemiological surveys in various parts of the world indicated that less than 30% of patients with hypertension have their blood pressure brought down below 140/90mmHg.¹² Cardiovascular disease is a major cause of mortality in the United States.¹⁵ Over two decades ago the America Heart association estimated that one in six men and one in seven women aged 45 to 64 have some of cardiovascular disease; and as the population ages these number will go up and an increasing number of individuals will be presented to the dentists for care¹⁵. Hence the importance of history taking; which will not only result in modifying dental treatment but most importantly

will lead to referring of patient for management of the underlying medical conditions. With an increase in life span the dental surgeon will be treating more medically compromised patients¹⁶.

Studies have shown that dental infections can constitute a risk factor for atherosclerotic vascular diseases in the nondiabetic population, and periodontal infections and tooth loss are shown to be associated with increase mortality from cardiovascular diseases¹⁷. Identification of the medical disorder is of great importance in order to take the necessary precautions and to avoid the occurrence of life threatening situations.⁴ Recognition of underlying medical conditions should be followed by proper medical consultation, thorough physical examination and intensive laboratory investigation. Majority of the patients that presented with underlying medical conditions and have not received specialist care or have defaulted, were referred to the appropriate specialist for further investigation and adequate management.

In conclusion, Our study have revealed the importance of adequate history taking, which will not only result in modifying dental treatment but, most importantly, will lead to identifying patients with underlying medical conditions and further management by specialist.

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