INTRODUCTION

Patients visiting dental OPD for extraction of teeth may present with different comorbidities, which sometimes may be unknown to them, or they may be on a complex range of medications for their medical conditions.

The aim of providing dental treatment is to provide safe and effective management without causing any medical emergency. Dental treatment may sometimes be modified according to the comorbidity of the patient, and sometimes consultation with the medical consultant may be needed. Proper medical history taking is the key to safe patient management.

The health status of a country’s population is also relevant. There is a lack of data about the frequency of medically compromised conditions in dental patients form Pakistan. With this view and for establishing a database of various systemic diseases in dental patients, a study was conducted over the period of ten months in the Oral and Maxillofacial Surgery department of Jinnah Medical and Dental College, Karachi (JMDC).

COMORBIDITIES IN PATIENTS REQUIRING DENTAL EXTRACTION

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ABSTRACT

A cross-sectional study was conducted at the Department of Oral and Maxillofacial Surgery of Jinnah Medical and Dental College, Karachi (JMDC) to determine the frequency of comorbidities that may affect the dental extraction in patients older than 35 years of age. A total of 3986 patients visited the oral surgery OPD of JMDC during the period of December 2010 to October 2011. The history charts of 1867 patients aged 35 years and above were included in the study. The patient’s medical and drug history was recorded on a predesigned Proforma to find out the frequency of different medical problems including hypertension, diabetes mellitus, hepatitis, anemia, gastrointestinal disorders, cardiac disorders, renal disorders and blood dyscrasias. From a total of 1,867 patients, 436 patients (23.4%) were having comorbidities. The age of patients ranged from 30 to 80 years with the mean age of 39.6 years. The majority of them (54%) were in the 4th to 6th decades of life. There were 898 male patients (48.1%) and 969 females (51.9%).

In this study, hypertension was the most prevalent comorbid accounting for (236/1867, 12.6%) patients, followed by diabetes mellitus (126/1867, 6.74%), peptic ulcer (48/1867, 2.57%) and ischemic heart disease (16/1867, 0.85%). It is very important for the attending clinicians to have an exact knowledge of the patient’s medical condition, although the prevalence of patients having comorbidities was not very high, the dentist must bear in mind that some of these patients may have contraindications to certain surgical procedures and others may require special modifications in standard treatment protocols to provide safe and effective dental treatment in these groups of patients.

Key Words: Dental extraction; Hypertension; Diabetes mellitus; Ischemic heart disease.

INTRODUCTION

Patients visiting dental OPD for extraction of teeth may present with different comorbidities, which sometimes may be unknown to them, or they may be on a complex range of medications for their medical conditions.

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The objective of the study was to find out the frequency of medical problems among the patients visiting dental OPD of JMDC for dental extraction.

METHODOLOGY

This study was conducted at the Department of Oral and Maxillofacial Surgery at Jinnah Medical and Dental College, Karachi. A total of 3986 patients visited the OPD from December 2010 to October 2011.

All patients above the age of 35 years were included in the study which accounted for 1,867 patients. Medical and dental histories were recorded on a predesigned comprehensive history form by the attending doctor for each patient attending the oral and maxillofacial surgery OPD.

The patient’s medical and drug history was recorded to find out the prevalence of different medical problems including hypertension, diabetes mellitus, hepatitis, anemia, gastrointestinal disorders, cardiac disorders, renal disorders and blood dyscrasias. In addition, familial tendency towards medical problems, drug history, and smoking habits of the patients were also recorded. Data were recorded on Microsoft Excel Spreadsheet and were analyzed using SPSS 14.0.

RESULTS

The total number of patients visited the OPD from December 2010 to October 2011 were 3986. A total of 436 patients out of 1867 (23.4%) were afflicted with comorbidities.

The age of dental patients who were afflicted with medically compromised conditions ranged from 30 to 80 years with the mean age ±SD = 39.6 ± 10.02 years. Majority of patients (54%) were in the 4th to the 6th decades. There were 898 male patients (48.1%) and 969 female patients (51.9%).

In this study, hypertension was the most prevalent comorbid accounting for (236/1867, 12.6%) followed by diabetes mellitus (126/1867, 6.74%), peptic ulcer (48/1867, 2.57%) and ischemic heart disease (16/1867, 0.85%). Fig 1

Within the strata of medically compromised individuals (436/1867), hypertension was recorded as 50%, followed by diabetes mellitus 27%, peptic ulcer 10% and other diseases comprising 13%. Fig 2

Hypertension was most common in fourth to fifth decade, diabetes was most common in 6th decade and peptic ulcer was most common in 3rd to 4th decade. Gender wise male patients were inflicted mostly in the age group between 50-59 years (5th decade) and female patients were inflicted mostly in 4th decade of life Fig 3.
Comorbidities in Patients Requiring Dental Extraction

DISCUSSION

A thorough knowledge and understanding of a patient’s medical problems is of paramount importance for providing effective and safe dental treatment. Patients having systemic diseases and taking complex medications may force modification of the dental management protocols especially if surgical treatment is indicated.

To elicit the patient’s medical history there are two different methods traditionally used in dental practice one is to take interviews and the other is patient self-reporting. Standard protocol of taking medical history was used.

The collected information of medical status of the patient was based on the patient’s general physician’s advice to them and medication prescribed. The information collected through history was correlated with the signs and symptoms of the patient to reach an accurate diagnosis.

The age of dental patients who were afflicted with medically compromised conditions ranged from 30 to 80 years similar diversity is also noticed in literature. The overall incidence of comorbidities increase with the increase in age.

23.4% patients were afflicted with comorbidities in the present. This figure is similar to Smeets et al study.

The practicing dentist should be able to modify the treatment plan to cater special management requirements of the patient’s medical condition, in a patient who has had myocardial infarction, all routine dental treatment should be avoided for initial six months. Similarly medicine should be prescribed with caution to the patients having hepatic or renal disorders. Prescribing medication in patients who are on multiple medications can be a challenge due to drug interaction.

CONCLUSION

In this study the medical status of the patients who come to the oral and maxillofacial surgery department for dental extraction was categorized according to their medical condition to highlight the role of proper history taking and recognition of comorbidities. Some of these patients may have contraindications to certain surgical procedures and others may require modifications in standard treatment protocols to provide safe and effective dental treatment in these patients.

REFERENCES