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ANALYSIS OF SYSTEMIC DISEASES IN PATIENTS SEEN AT ORAL MEDICINE DEPARTMENT

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Abstract:
Introduction: Due to advances in medical technology, there is an increase in life expectancy in many parts of the world. They also reflect in better oral health in a number of patients since they still retain their natural teeth into the old age.
Aims and objectives: The main objective of the study is to analyze the systemic diseases in patients seen at oral medicine department.
Material and methods: This cross-sectional study was conducted in Demontmorency College of Dentistry, Lahore during November 2018 to March 2019. The data comprises of 100 randomly selected patients who visited the OPD of the hospital. A standardized medical questionnaire which included information on age, gender, marital status, education level and occupation, medications, smoking, and alcohol habits were questioned.
Results: The data was collected from 100 patients. In our evaluation, diabetes mellitus was the most common systemic disease affecting the population with a rate of 38.3%. In the public system, 35.2% of patients had some type of systemic disease compared to 28.1% of patients in the private clinic; this difference, which was statistically significant (p= 0.003), was due mainly to respiratory disease (3.7% in the public health system versus 1.6% in private practice, p= 0.008) and endocrine-metabolic disease (13.7% in the public system versus 6.3% in private practice, p= 0.001).
Conclusion: It is concluded that there is a significant prevalence of patients with medical disorders and who are receiving polypharmacy among individuals requesting dental treatment; this particularly affects the public health service.

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INTRODUCTION:

Due to advances in medical technology, there is an increase in life expectancy in many parts of the world. They also reflect in better oral health in a number of patients since they still retain their natural teeth into the old age. As a consequence, dentists are expected to encounter a greater number of elderly patients. As the proportion of the elderly in the population continues to increase, there will be more patients with medically compromised conditions [1]. When dentists have a chance to treat these patients, there are concerns that they should be aware of such as the effect of medical problems and their treatments on dental treatment plans, the dental or oral soft tissue problems that can arise in these patients and the effect of dental treatments on their medical conditions [2].

The advances in Medicine in recent decades, particularly with regard to early diagnosis and new therapeutic procedures, have contributed to an improvement in the quality of life of patients with chronic illness and have increased life expectancy in the general population. Spain is one of the countries of the European Community with the highest life expectancy (80.33 years in 2005)[3]. This situation is also seen in oral health, contributing to the preservation of natural teeth until later in life, thus increasing the demand for dental treatment among elderly patients or those with concomitant diseases.

Some apparently healthy patients requesting dental treatment may have serious systemic disease and may be taking drugs that can influence dental treatment [4]. Healthcare professionals responsible for oral and dental health of these patients must ensure that the risks of systemic complications during or as a result of dental treatment are minimised. Patients who come to dental clinics do not always report their past medical history, usually because they do not consider it important or do not relate it to their dental problem [5]. An adequate medical training and the taking of a detailed medical history, which must include the patient's past medical and drug history, and interrogation about the general state of health, are essential in order to detect patients with relevant medical conditions and to avoid the risks derived from dental treatment [6].

AIMS AND OBJECTIVES:

The main objective of the study is to analyze the systemic diseases in patients seen at oral medicine department.

MATERIAL AND METHODS:

This cross sectional study was conducted in Demontmorency College of Dentistry, Lahore during November 2018 to March 2019. The data comprises of 100 randomly selected patients who visited the OPD of the hospital. A standardized medical questionnaire which included information on age, gender, marital status, education level and occupation, medications, smoking, and alcohol habits were questioned.

HEMATOLOGIC DISEASES:

Anemia, leukemia, hemophilia, purpura, thalassemia, and other bleeding disorders.

Cardiovascular diseases: Hypertension, congenital heart diseases, rheumatic heart diseases, ischemic heart diseases, patient's undergone angioplasty, coronary bye pass graft surgery, and prosthetic valve replacement.

Endocrine diseases: Diabetes mellitus, renal diseases, thyroid, and parathyroid disorders.

Statistical analysis: The collected data were analyzed with Statistical Package for Social Sciences for Windows, version 16.0 (SPSS Inc., Chicago, IL, USA) and results were obtained.

RESULTS:

The data was collected from 100 patients. In our evaluation, diabetes mellitus was the most common systemic disease affecting the population with a rate of 38.3%. In the public system, 35.2% of patients had some type of systemic disease compared to 28.1% of patients in the private clinic; this difference, which was statistically significant (p= 0.003), was due mainly to respiratory disease (3.7% in the public health system versus 1.6% in private practice, p= 0.008) and endocrine-metabolic disease (13.7% in the public system versus 6.3% in private practice, p= 0.001). Although drug consumption was similar in the two groups of patients (27% in the public system versus 23.3% in the private system), the percentage of patients receiving polypharmacy was significantly higher in the group from the public system.

Table 01: Prevalence of systemic diseases in oral surgery patients

Systemic problem	Oct	Nov	Dec	Jan	Feb	Incidence rate (%)
Anemia	9	13	9	9	8	
Leukemia	–	–	1	1	–	
Thalassemia	–	–	–	–	–	
Group I: Hematological disorders	9	13	10	10	9	12.84
Hypertension	29	27	30	28	15	
Rhumatic heart disease	3	1	2	2	1	
Ischemic heart disease	6	1	–	2	2	
Group II: Cardiac disorders	38	29	32	32	18	35.57
Diabetes mellitus	14	15	14	18	9	
Renal	2	–	1	–	–	
Thyroid	5	2	3	1	1	
Group III: Metabolic disorders	21	17	18	19	10	20.35
Psycological problems	–	–	–	–	1	
Epilepsy	5	3	2	3	3	
Group IV: Neurological problems	5	3	2	3	4	4.34
Bronchial asthma	4	3	4	4	3	

DISCUSSION:

In our study, we had a high prevalence rate of 52.8% systemic diseases and patients had one or more medical conditions, and most of them were elderly. This is in accordance with other studies. A study by Cottone and Kafrawy showed a prevalence rate of medically compromised patients in dental practice as 35.3% with highest prevalence of cardiovascular disease followed by metabolic diseases. Rhodus et al. reported that the prevalence of medical conditions in dental patients increased from 7.3% in 1976 to 24.6% in 1986 [7].

In the literature, the state of health of individuals requesting dental care is most commonly evaluated through the use of self-administered questionnaires that gather information on various aspects of health. However, these questionnaires have certain limitations: they require patient collaboration, they must be drawn up in a language that the patient understands, and they require confirmation of the replies by the dentist [8]. Other authors have used a modified American Society of Anesthesiology (ASA) risk score (a method designed by the ASA in the middle of the past century to determine the risk of patients undergoing general anaesthesia) to determine the risk of dental patients treated under local anaesthesia [9]. The objective of the present study was not to detect previously undiagnosed systemic disease but to evaluate the prevalence of known pre-existing systemic disease in a cohort of patients requesting dental treatment; we therefore used the medical histories drawn up by a single dentist [10,11].

CONCLUSION:

It is concluded that there is a significant prevalence of patients with medical disorders and who are receiving polypharmacy among individuals requesting dental treatment; this particularly affects the public health service.

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