



Original Research Article

The prevalence of systemic diseases among dental patients in Medenta Oral & Dental Care, Kabul, Afghanistan

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ABSTRACT

Aim: To determine the prevalence of systemic diseases in patients looking for dental management in Medenta Oral and Dental Care.

Study Design: The archived files of 2040 patients looking for dental management in Medenta Oral and Dental Care from 2018-2021 were retrieved and reviewed for systemic diseases.

Results: Out of 2040 patients, 1348 patients (67%) had systemic diseases. The most prevalent systemic diseases in descending order were gastro-intestinal disease (14.7%), anemia (14.3%), headaches (11.4%), depression (11.3%), and high blood pressure (5.6%).

Conclusions: As the results indicate the prevalence of systemic diseases in dental patients is considerable, especially in women, so the dentists should pay attention while taking patients' medical history as there could be some diseases or medications that are contraindicated for certain dental procedures or the patient may need special consideration during the treatment process. Hence, detailed and systematic history taking and accurate clinical examinations are required before starting any dental procedure.

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1. Background

Systemic diseases affect the body in a variety of pathways, some of them can produce oral and dental manifestations, additionally, systemic diseases can be exacerbated with dental procedures.¹⁻³ There is a broad connection between systemic diseases and oral diseases. Dental management are widely influenced by systemic diseases and medications, and dental treatments may have effects on the systemic diseases of the patients.^{4,5} The prevalence of systemic diseases among dental patients in different studies conducted in Tehran, Mashhad, India, and Saudi Arabia has been reported to be 10.3% to 52.8%⁶⁻⁹ and Diabetes mellitus, hypertension, and digestive disorders were among the prevalent systemic diseases in dental

patients.

Obviously taking a detailed and inclusive history of patients by the dentist is one of the essential steps before starting any procedure. To provide safe and reasonable treatments, in certain patients with systemic diseases or usage of medications, changes in the treatment process of oral and dental illnesses should be considered.

It is expected that dentists encounter a large number of patients, particularly the elderly. With the increase in proportions of old age people in the population, the number of patients with systemic diseases will grow larger. When dentists have a chance to treat these patients, there are worries that they should be aware of such effects of medical problems that can arise in these patients and the effect of dental treatments on their medical conditions.

There is a lack of information concerning the prevalence of medical systemic diseases in dental patients in

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Afghanistan. To the best of our knowledge, there is not even a small scale study about the prevalence of systemic diseases from any dental clinic in Afghanistan. The objective of this study is to determine the prevalence of systemic diseases among Medanta Oral & Dental Care's dental patients in Kabul, Afghanistan.

2. Materials and Methods

In this descriptive study the whole patients' records, who were referred for dental care to Medanta clinic from January 2018 to December 2021, were collected and reviewed for systemic diseases. A total of 2040 patients' records from their files-archived in Medanta Oral & Dental Center were reviewed for the prevalence of medical systemic diseases. The demographic data of the patients were also considered. Data were analyzed by excel and IBM SPSS version 21.

3. Results

Out of a total of 2040 patients, 1348 patients (67%) were affected by medical systemic conditions as shown in Figure 1. The age of patients who suffered systemic diseases ranged from 1 to 95 years. The percentage of systemic diseases were found to be higher in female patients than males, as shown in Table 2. In this study, the most prevalent systemic disease found to be gastrointestinal diseases followed by anemia, headaches, depression, high blood pressure, rheumatic fever, heart problems, and others as shown in Table 1.

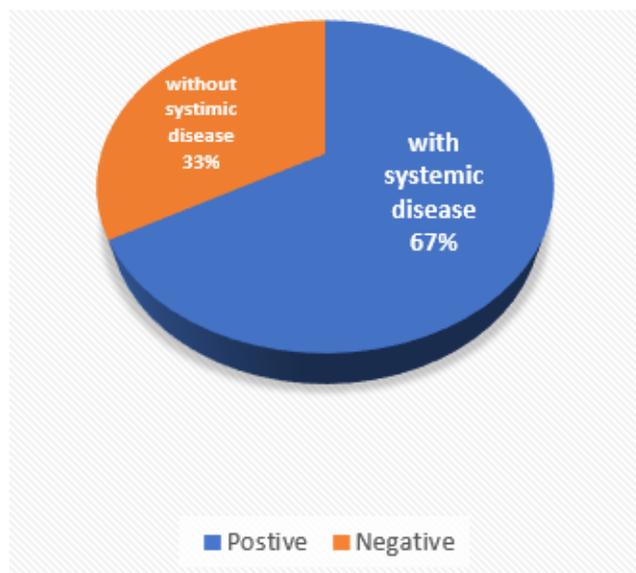


Fig. 1: The percentages of dental patients with systemic disease

4. Discussion

Although the patients go to the dentist for their oral and dental conditions, the oral cavity like a mirror can reflect the systemic conditions too. For a safe and effective treatment, the dentist should be aware of the systemic conditions of the patient. The prevalence of systemic diseases among patients who visited the Medanta oral and dental clinic was 67%. The prevalence of systemic diseases was found to be greater in female patients. These findings are similar to findings of other studies.^{1,3,8,10}

Gastrointestinal disease was noted to be the most common systemic condition in this study, while many studies reported the high blood pressure as the commonest systemic condition^{1,7,8,10,11} Although in this study we found the hypertension as the fifth most common systemic condition.

In this study anemia was the second most common systemic condition. This finding of the study is comparable to other studies^{1,7,8,10,11} Anemia a prevalent disease that affects around 1.6 billion people around the world, particularly children and women, has many important consequences. The World Health Organization estimations show that worldwide prevalence of anemia is around 24.8%.¹² Although the type of anemia was not studied in this research but the data shows that globally, anemia due to iron deficiency is the most common type of anemias.¹³

Headache was the third most common systemic condition in this study. The Global Burden of Disease (GBD) findings indicate that headache disorders are one of the major public-health problems around the world.¹⁴

In this study diabetes mellitus was among the common systemic conditions, other authors also reported it as common disease.¹⁵

Other conditions such as kidney disorders, HIV, hepatitis and epilepsy found to be less prevalent in this study. This study is one of its first kinds that observe the prevalence of systemic condition in dental patient in Afghanistan. Although the sample size of this study is large but it was conducted only in one centre and for more accurate information, extensive researches should be conducted.

5. Conclusion

As the results indicate the prevalence of systemic diseases in dental patients is considerable especially in women, so the dentists should pay attention while taking patients medical history as there could be some disease or medications that are contraindicated for certain dental procedures or the patient need special consideration during treatment process. Hence, a detailed and systematic history taking and accurate clinical examinations are required before starting any dental procedure. The patients also should be advised and encouraged to share the information about their systemic disease and medication taking regularly while

Table 1: The frequency and percentage of the different systemic diseases.

Systemic Disease	Frequency	Percentage (%)
Rheumatic Fever	79	3.9
Anemia	288	14.3
Kidney Diseases	13	0.64
Gastrointestinal Problem	295	14.7
High Blood Pressure	113	5.6
Epilepsy	4	0.19
Depression	227	11.3
Heart Problems	69	3.4
Hepatitis	5	0.24
Headache	230	11.4
HIV	14	0.69
Diabetes	11	0.54

Table 2: The percentages and frequency of systemic conditions in males and females

Systemic Diseases	Male Frequency (Percentage)	Female Frequency (Percentage)
Rheumatic Fever	50 (2.5%)	29 (1.44%)
Anemia	50 (2.5%)	238 (11.87%)
Kidney Diseases	12 (0.59%)	1 (0.049%)
Gastric Problems	100 (4.99%)	195 (9.73%)
High Blood Pressure	72 (3.59%)	41 (2.04%)
Epilepsy	4 (0.19%)	0 (0%)
Depression	90 (4.49%)	137 (6.83%)
Heart Problems	20 (0.99%)	49 (2.44%)
Hepatitis	4 (0.19%)	1 (0.049%)
HIV	8 (0.39%)	6 (0.29%)
Diabetes	3 (0.14%)	8 (0.39%)
Headache	100 (4.99%)	130 (6.48%)

seeking dental treatments.

6. Ethical Approval

The study was conducted according to the Declaration of Helsinki. Furthermore, no one of the authors and examiners has the authority to use all these secret information illegally. Meanwhile, the ethical and research committee of the Pharmacology department of Kabul University of Medical Sciences approved the study ethically in protocol number 88.

7. Source of Funding

None.

8. Conflict of Interest

None.

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