

**MODERN APPROACHES TO THE TREATMENT OF DENTAL DISEASES IN
PATIENTS WITH IODINE DEFICIENCY**

Khayitova Mohinur Dzhurayevna

Asia International University

Email: mohinurxayitova45@gmail.com

ABSTRACT: This article analyzes dental diseases observed in patients with iodine deficiency, their pathogenesis, and modern treatment methods. Iodine deficiency leads to metabolic disturbances in the body and negatively affects the tissues of the oral cavity. The importance of an individual and comprehensive approach in the dental treatment of such patients is also substantiated.

Keywords: iodine deficiency, dental diseases, caries, gingivitis, periodontitis, endocrine system, treatment.

INTRODUCTION

Iodine is an essential micronutrient for the human body. It plays a key role in the synthesis of thyroid hormones—thyroxine and triiodothyronine—which regulate metabolic processes. Iodine deficiency leads to dysfunction of the endocrine system and negatively affects various body systems, including oral health.

In recent years, the increasing prevalence of iodine deficiency-related conditions, including dental pathologies, highlights the relevance of this issue.

MAIN PART

1. The effect of iodine deficiency on the body

Iodine deficiency leads to decreased thyroid function, known as hypothyroidism. This condition is characterized by:

- slowed metabolic processes;
- weakened immune system;
- reduced regenerative capacity.

As a result, the following pathological conditions may develop in the oral cavity:

- inflammation of the gingival tissues (gingivitis);
- damage to periodontal tissues;
- decreased resistance of tooth enamel.

2. Dental diseases associated with iodine deficiency

Patients with iodine deficiency are more prone to the following dental diseases:

- **caries** – develops rapidly due to impaired enamel mineralization;
- **gingivitis** – inflammation of the gums;
- **periodontitis** – destruction of the supporting structures of the teeth;
- **stomatitis** – inflammation of the oral mucosa.

3. Diagnostic features

When examining patients with iodine deficiency, the following aspects should be considered:

- general medical history and presence of endocrine disorders;
- functional status of the thyroid gland;
- laboratory parameters (TSH, T3, T4 levels);
- level of oral hygiene.



4. Treatment methods

4.1. Comprehensive approach

Effective management requires collaboration between a dentist and an endocrinologist.

4.2. Local treatment

- rinsing with antiseptic solutions (e.g., chlorhexidine);
- use of anti-inflammatory gels and ointments;
- professional oral hygiene procedures.

4.3. Systemic treatment

- administration of iodine preparations under medical supervision;
- use of vitamin and mineral complexes;
- measures to strengthen the immune system.

4.4. Treatment of caries

- removal of affected hard tissues;
- restoration (filling);
- remineralization therapy.

4.5. Treatment of periodontal diseases

- scaling and curettage;
- physiotherapeutic procedures;
- antibacterial therapy.

CONCLUSION

Iodine deficiency negatively affects the overall functional state of the body and contributes to the development of dental diseases. A comprehensive and individualized approach is essential in managing such patients. Timely preventive measures can help reduce the risk of dental pathologies.

REFERENCES

1. Khayitova, M. Z. (2024). Modern views on the Causes and Treatment of Caries of Temporary Teeth in Young Children. *International Journal of Alternative and Contemporary Therapy*, 2(9), 123-127.
2. Khayitova, M. D. (2024). Morphological Features of Bottle (Circular) Caries. *American Journal of Bioscience and Clinical Integrity*, 1(10), 117-124.
3. Dzhuraevna, K. M. (2024). Features of Caries Morbidity in Preschool Children. *Research Journal of Trauma and Disability Studies*, 3(3), 300-305.
4. Hayitova, M., & Taylakova, D. (2023). DENTAL CARIES IS A DISEASE OF CIVILIZATION. *Центральноазиатский журнал образования и инноваций*, 2(8), 61-66.
5. Джураевна, К. М. (2024). Клинико-морфологические аспекты трещин на задних зубах у взрослых. *Научный журнал травматологии и инвалидности*, 3 (5), 429-432.
6. Dzhuraevna, K. M. (2024). Prevalence and Course of Dental Diseases Among Younger Patients. *Research Journal of Trauma and Disability Studies*, 3(5), 433-436.
7. Хайитова, М. Д. (2023). Особенности Возникновение И Течение Кариеса Зубов. *Research Journal of Trauma and Disability Studies*, 2(12), 356-363.
8. Хайитова, М., & Тайлакова, Д. (2023). ВЗГЛЯД СТОМОТОЛОГА НА ГИГЕНУ ПОЛОСТИ РТА У ДЕТЕЙ. *Инновационные исследования в современном мире: теория и практика*, 2(23), 58-59.
9. Хайитова, М. Д. (2023). РАСПРОСТРАНЕННОСТЬ И РАСПРЕДЕЛЕНИЕ ТРЕЩИН НА ЗАДНИХ ЗУБАХ СРЕДИ ВЗРОСЛЫХ ПАЦИЕНТОВ (ОБЗОР ЛИТЕРАТУРЫ). *Лучшие интеллектуальные исследования*, 12(1), 186-195.



10. Dzhuraevna, K. M. (2024). Clinical and Morphological Aspects of Cracks on The Back Teeth in Adults. *Research Journal of Trauma and Disability Studies*, 3(5), 429-432.
11. Dzhuraevna, K. M. (2023). THE FREQUENCY OF DENTAL DISEASES IN CHILDREN (LITERATURE REVIEW). *Лучшие интеллектуальные исследования*, 12(1), 159-168.
12. Dzhuraevna, K. M. (2023). FEATURES OF THE OCCURRENCE OF DENTAL DISEASES IN CHILDREN. *Лучшие интеллектуальные исследования*, 12(1), 178-185.
13. Khayitova, M. (2025). GUIDELINES FOR DENTAL EMERGENCIES DURING A PANDEMIC. *Modern Science and Research*, 4(1), 827-835.
14. Хаитова, М. (2025). СТОМАТОЛОГИК КАСАЛЛИКЛАР ПРОФИЛАКТИКАСИДА ФТОР САКЛОВЧИ БИРИКМАЛАРНИНГ АХАМИЯТИ. *Современная наука и исследования*, 4 (2), 1055–1065.
15. Тошбеков Б. и Хаитова М. (2025). ТИШ КАРИЕСИ ПРОФИЛАКТИКАСИНИНГ ИНСОН ОРГАНИЗМИДАГИ АХАМИЯТИ. *Современная наука и исследования*, 4 (2), 591–594.
16. Khayitova, M. (2025). TISH YUZASIDA HOSIL BOLADIGAN KARASHLAR VA TOSHLAR (ШОКМАЛАР). *Modern Science and Research*, 4(3), 1405-1412.
17. Хаитова, М. (2025). ТИШ КАТТИК ТО'КИМАСИ РЕМИНЕРАЛИЗАЦИЯ КАРИЕС ПРОФИЛАКТИКАСИДАГИ О'РНИ. *Современная наука и исследования*, 4 (4), 1801–1806 гг.
18. Khayitova, M. (2025). BOLALARDA KARIES PROFILAKTIKASIDA FISSURALARNI MUHRLASH VA ULARNING АХАМИЯТИ. *Modern Science and Research*, 4(5), 504-507.
19. Endokrinologiya asoslari – darslik
20. Terapevtik stomatologiya
21. WHO – Iodine deficiency disorders bo'yicha materiallar
22. Zamonaviy stomatologiya jurnallari maqolalar.

