

# Oral manifestations of systemic diseases: Insights from oral pathology.

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## Introduction

The oral cavity serves as a window to the overall health of an individual, and oral manifestations can often be the initial signs of systemic diseases. Many systemic conditions have specific oral manifestations that can aid in the early detection, diagnosis, and management of these diseases. Oral pathology plays a crucial role in identifying and understanding these oral manifestations, providing valuable insights into systemic health [1].

Several systemic diseases can exhibit oral manifestations, including autoimmune disorders, hematological disorders, endocrine disorders, viral infections, and nutritional deficiencies. Let's explore some of the common oral manifestations associated with these conditions:

### Autoimmune Disorders

Autoimmune disorders such as systemic lupus erythematosus (SLE), Sjögren's syndrome, and pemphigus vulgaris can manifest in the oral cavity. Patients with SLE may experience oral ulcers, redness, and discoid lesions. Sjögren's syndrome often presents with dry mouth (xerostomia) and dry eyes due to reduced salivary and lacrimal gland function. Pemphigus vulgaris can cause painful oral blisters and erosions.

### Hematological Disorders

Hematological disorders, including anemia, leukemia, and clotting disorders, can have oral manifestations. Anemia may result in pale oral mucosa, glossitis (inflammation of the tongue), and angular cheilitis (cracks at the corners of the mouth). Leukemia can cause gingival enlargement, petechiae (small red spots), and oral bleeding. Clotting disorders may lead to excessive bleeding following dental procedures [2].

### Endocrine Disorders

Endocrine disorders such as diabetes mellitus and hyperparathyroidism can affect oral health. Diabetes mellitus can lead to oral candidiasis (yeast infection), delayed wound healing, and increased risk of periodontal disease. Hyperparathyroidism can cause brown tumor-like lesions in the jawbones, known as central giant cell granuloma.

### Viral Infections

Certain viral infections can manifest with oral symptoms. Herpes simplex virus (HSV) can cause recurrent cold sores or fever blisters on the lips or inside the mouth. Human

immunodeficiency virus (HIV) infection can result in various oral manifestations, including oral candidiasis, hairy leukoplakia (white patches on the tongue), and Kaposi's sarcoma (red or purple lesions) [3].

### Nutritional Deficiencies

Nutritional deficiencies, particularly vitamin B12, iron, and folate deficiencies, can affect oral tissues. Vitamin B12 deficiency can cause glossitis, oral ulcers, and angular cheilitis. Iron deficiency anemia may present with pale oral mucosa and glossitis. Folate deficiency can lead to a red, smooth, and sore tongue. The oral manifestations of these systemic diseases provide valuable diagnostic clues for healthcare professionals. Dentists and oral pathologists are trained to recognize and evaluate these manifestations, which can prompt further investigations, collaboration with other healthcare providers, and appropriate management [4].

Diagnosing oral manifestations of systemic diseases involves a comprehensive evaluation of the patient's medical history, clinical examination, and sometimes, laboratory tests. A thorough assessment of the patient's oral cavity, including the mucosa, tongue, gums, and salivary glands, is essential. Biopsies and histopathological examinations may be necessary to confirm the diagnosis and guide further management.

Early detection and diagnosis of systemic diseases through oral manifestations can significantly impact patient outcomes. Timely identification of these signs allows for the initiation of appropriate treatment and the management of underlying systemic conditions. It can also help improve oral health and prevent complications related to oral manifestations [5].

## Conclusion

Oral pathology provides valuable insights into the oral manifestations of systemic diseases. Dentists, oral pathologists, and other healthcare professionals play a crucial role in recognizing these manifestations, facilitating early detection, and ensuring appropriate management. By staying informed about the relationship between oral and systemic health, healthcare providers can improve patient care and outcomes, promoting overall well-being.

## References

1. Hasan S, Ahmed S, Panigrahi R, et al. Oral cavity and eating disorders: An insight to holistic health. *J Family Med Prim Care*. 2020;9(8):3890.

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2. Islam NM, Bhattacharyya I, Cohen DM. Common oral manifestations of systemic disease. *Otolaryngol Clin North Am.* 2011;44(1):161-82.
3. Ahmad P, Arshad AI, Della Bella E, et al. Systemic manifestations of the periodontal disease: a bibliometric review. *Molecules.* 2020;25(19):4508.
4. Nico MM, Vilela MA, Rivitti EA, et al. Oral lesions in lupus erythematosus: correlation with cutaneous lesions. *Eur J Dermatol.* 2008;18(4):376-81.
5. Nguyen CQ, Peck AB. Unraveling the pathophysiology of Sjogren syndrome-associated dry eye disease. *Ocul Surf.* 2009;7(1):11-27.