Clinical presentation of oral diseases

Diagnosis, prevention and treatment

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Objectives

- Understand general and systemic diseases and their relevance to oral health
- Explain and be able to identify these conditions and understand their impact on clinical treatment

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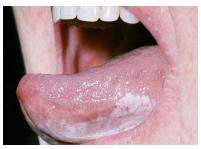
Mucosal Abnormalities Impacting Oral Health

Leukoplakia

- Appearance: White patch that cannot be wiped off.
- Significance: Precancerous; needs biopsy.
- Dental Impact: Delay elective treatment; refer for specialist evaluation.



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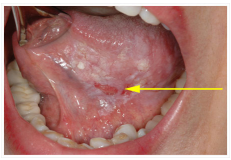
Mucosal Abnormalities

Erythroplakia

- Appearance: Red, velvety lesion.
- Significance: Higher risk of malignancy than leukoplakia.
- Dental Impact: Urgent referral to oral medicine/surgery.



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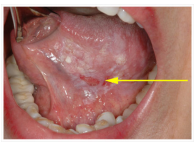
Mucosal Abnormalities Impacting Oral Health

Lichen Planus

- Appearance: White striations (Wickham's striae), often bilateral on buccal mucosa.
- Forms: Reticular (common), erosive (painful), ulcerative.
- Dental Impact: Erosive type may require corticosteroids and pain management; stress and trauma avoidance during treatment.



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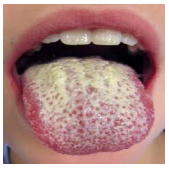
Mucosal Diseases

Candidiasis (Oral Thrush)

- Appearance: White plaques that wipe off, red inflamed mucosa underneath.
- Causes: Immunosuppression, antibiotics, steroids, dentures.
- Dental Impact: Delay elective treatment if acute; prescribe antifungals.



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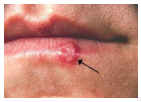
Mucosal Abnormalities Impacting Oral Health

Herpes Simplex Virus (HSV-1)

- Primary infection: Herpetic gingivostomatitis (painful ulcers, fever).
- Reactivation: Cold sores (herpes labialis).
- Dental Impact: Postpone treatment during active phase; antiviral if severe.



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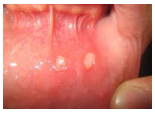
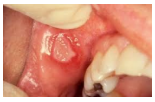
Mucosal Diseases

Aphthous Ulcers (Canker Sores)

- Types: Minor, major, herpetiform.
- Dental Impact: Pain control essential; avoid trauma during procedures.





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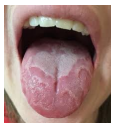
Mucosal Abnormalities Impacting Oral Health

Geographic Tongue (Benign Migratory Glossitis)

- Appearance: Red patches with white borders that move.
- Dental Impact: Usually harmless, but can cause discomfort with spicy food or stress.



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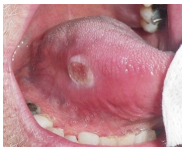
Mucosal Diseases

Oral Cancer

- Signs: Non-healing ulcers, indurated lesions, unexplained swelling.
- Dental Impact: Suspicious lesions should prompt referral and biopsy before dental work continues.



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Dental Professional's Role

- Conduct thorough soft tissue exams during every check-up.
- Record lesion duration, size, and characteristics.
- Refer non-healing or suspicious lesions persisting longer than 2–3 weeks (especially red, indurated, or ulcerated).
- Use urgent referral guidelines (e.g., 2-week wait pathway in the UK or relevant local protocol).
- Educate patients on self-awareness and risk factors: smoking, alcohol, HPV, sun exposure, betel nut use.

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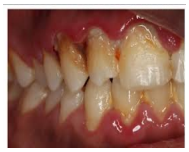
Acute Conditions Impacting Oral Health & Treatment

Acute Necrotizing Ulcerative Gingivitis (ANUG)

- Features: "Punched-out" interdental papillae, pain, bleeding, halitosis.
- Dental Impact: Emergency care includes debridement, antibiotics, and hygiene education. Postpone definitive treatment until infection resolves.



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Acute conditions

Pericoronitis

- Cause: Infection around partially erupted molars (commonly wisdom teeth).
- Symptoms: Pain, swelling, trismus.
- Dental Impact: Irrigation, possible antibiotics; extraction only after acute phase resolves.

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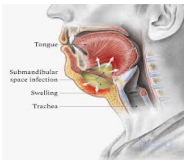
Acute conditions

Ludwig's Angina

- Cause: Spreading cellulitis of the floor of the mouth (often from infected lower molar).
- Dental Impact: Medical emergency—may compromise airway. Immediate hospital referral.



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Rare Conditions

Herpangina / Hand-Foot-Mouth Disease

- Cause: Enteroviruses (Coxsackievirus).
- Features: Multiple small vesicles/ulcers in posterior oral cavity (herpangina) or throughout mouth and extremities.
- Dental Impact: Delay treatment during active phase; manage symptoms.

Erythema Multiforme (EM)

- Appearance: Target lesions on skin, oral ulcerations, lip crusting.
- Causes: Often triggered by HSV or drugs.
- Dental Impact: Postpone treatment; may need corticosteroids; refer urgently if suspected.

Stevens-Johnson Syndrome / Toxic Epidermal Necrolysis

- Severe forms of EM with mucosal sloughing.
- Dental Impact: Life-threatening; requires hospitalisation. Do not treat in dental setting.

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Multiple Choice Questions (MCQs)

1. A white patch on the oral mucosa that cannot be wiped off and has no obvious cause is best described as:

- A. Candidiasis
- B. Leukoplakia
- C. Lichen planus
- D. Geographic tongue

2. A 22-year-old patient presents with painful, shallow ulcers on the buccal mucosa and labial mucosa, with no systemic symptoms. What is the most likely diagnosis?

- A. Primary herpetic gingivostomatitis
- B. Aphthous ulcers
- C. Oral lichen planus
- D. Herpangina

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Multiple Choice Questions (MCQs)

3. Which of the following oral conditions is most associated with immunosuppression or recent antibiotic use?

- A. Erythema multiforme
- B. Geographic tongue
- C. Oral candidiasis
- D. Herpes labialis

4. A patient with a red, velvety lesion on the floor of the mouth should be:

- A. Give antifungal treatment
- B. Reassured and reviewed in 6 months
- C. Referred for urgent biopsy
- D. Given high-dose vitamin B12

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Multiple Choice Questions (MCQs)

5. Which condition is a dental emergency due to the risk of airway obstruction?

- A. Pericoronitis
- B. Ludwig's angina
- C. Oral lichen planus
- D. Necrotizing ulcerative gingivitis

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Case-Based Question

A 34-year-old male presents with a painful ulcer on the lateral tongue that has persisted for 3 weeks. He is a smoker and reports no history of trauma. On examination, the lesion is red with raised borders and measures approximately 1 cm.

- a. What are two possible differential diagnoses?
- b. What would be the next appropriate step in management?
- c. Name one risk factor for malignant transformation.

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