

Quiz

Oral Mucoscopy Quiz

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QUESTIONS

- Which of the following is NOT a known mucoscopic feature of Fordyce's spots [Figure 1a]?
 - Whitish to yellowish ovoid structures
 - Central opacity surrounded by branching vessels
 - Bright fluorescent dots within the clods on ultraviolet-induced fluorescence dermatoscopy (UVFD)
 - Polyglobular amorphous structures with peripheral crown vessels

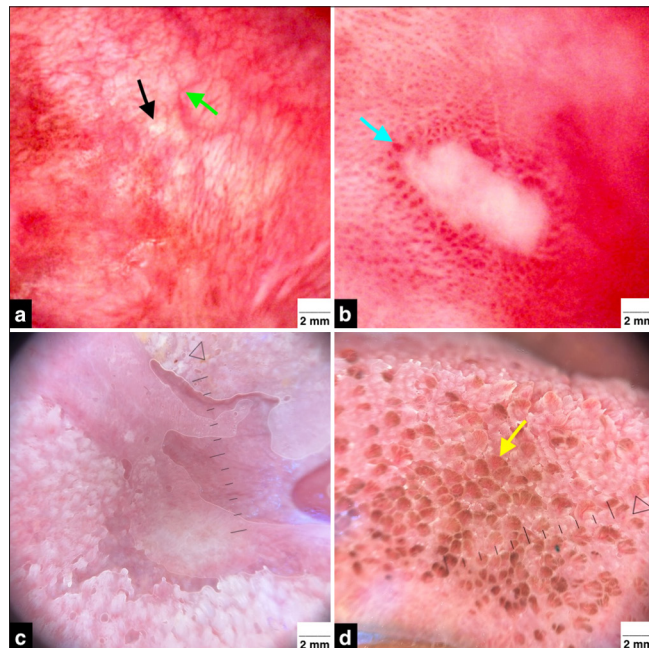


Figure 1: Mucoscopy of (a) Fordyce's spots (AM7115MZT Dino-Lite Edge 3.0 digital microscope, polarised mode; ×35) showing central opacity (black arrow) surrounded by branching vessel (green arrow), (b) Aphthous stomatitis (AM7115MZT Dino-Lite Edge 3.0 digital microscope, polarised mode; ×35) showing peripheral dotted vessels (blue arrow); (c) Tongue (HeineDELTA one) showing loss of filiform papillae and white demarcating lines (polarised; ×10) and (d) Tongue (HeineDELTA one) showing the rose petal (yellow arrow) pattern (polarised; ×10).

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2. Lingual varicosities are characterised by which mucoscopic feature?
 - a. Red to dark blue lacunae with a linear distribution
 - b. Greenish structures with branching vessels
 - c. Purple nodules with white centres
 - d. Orange spots with linear vessels
3. What mucoscopic feature is commonly observed in mucocele?
 - a. Blackish hue with linear vessels
 - b. Green pigmentation with dotted vessels
 - c. Purplish colour with branching vessels
 - d. Orange areas with reticular pattern
4. Which condition is associated with brownish hair-like elongation of filiform papillae?
 - a. Eruptive lingual papillitis
 - b. Lingua villosa nigra
 - c. Lingual pigmented fungiform papillae
 - d. Lingua plicata
5. 'Landscape painting patterns' are seen on mucoscopy in which condition?
 - a. Mucosal discoid lupus erythematosus (DLE)
 - b. Lingual pigmented fungiform papillae
 - c. Mucosal pyogenic granuloma
 - d. Pigmented labial macule
6. In autoimmune disorders, which mucoscopic feature is associated with DLE?
 - a. Ulceration/erosions
 - b. White structureless areas
 - c. Bleeding spots
 - d. All the above
7. Sjögren's syndrome on the tongue is characterised by which mucoscopic feature?
 - a. Flattened filiform papillae
 - b. Elongated filiform papillae
 - c. Flattened fungiform papillae
 - d. Elongated fungiform papillae
8. All of the following are false about mucoscopy of aphthous stomatitis [Figure 1b] EXCEPT:
 - a. Reveals a single homogeneous colour
 - b. Shows three distinct zones
 - c. Lacks any noticeable pattern
 - d. Displays orange background
9. Mucoscopic features of oral lichen planus (LP) include:
 - a. Blunted papillae
 - b. White reticular lines
 - c. Tricolour background
 - d. All the above
10. Which statement is true regarding mucoscopy of plasma cell cheilitis?
 - a. Displays red dots with a green background
 - b. White structureless areas and telangiectasias
 - c. Lacks any identifiable pattern
 - d. Presents as black spots with linear lines
11. Venous lake shows which mucoscopic characteristic?
 - a. Structureless pattern
 - b. Purple, red or blue globules
 - c. Both (a) and (b)
 - d. Orange spots
12. Which mucoscopic feature is observed in mucosal pyogenic granuloma?
 - a. Red homogenous areas
 - b. White collarette
 - c. White lines
 - d. All the above
13. 'Jellyfish in a sea of red' appearance on mucoscopy is seen in:
 - a. Eruptive lingual papillitis
 - b. Lingua villosa nigra
 - c. Lingual pigmented fungiform papillae
 - d. Lingua plicata
14. Loss of filiform papillae and white demarcating lines [Figure 1c] are mucoscopic features of:
 - a. Median rhomboid glossitis
 - b. Benign migratory glossitis
 - c. Atrophic glossitis
 - d. Geographic tongue
15. Thick elongated red-brownish lines are mucoscopic features of:
 - a. Venous lakes
 - b. Oral vascular malformations
 - c. Oral hemangiomas
 - d. Oral angiofibromas
16. Which of the following dermoscopic patterns of filiform papillae in connective tissue diseases (CTDs) has been correctly matched with its description?
 - a. Type I: Non-cornified papillae
 - b. Type II: Flattened papillae
 - c. Type III: Round papillae
 - d. Type IV: Normal papillae
17. Rose petal pattern on mucoscopy [Figure 1d] is seen in:
 - a. Lingual pigmented fungiform papillae
 - b. Transient lingual papillitis
 - c. Eruptive lingual papillitis
 - d. Fungiform papillary glossitis
18. Bright red structureless area with sharp jagged margins are seen on mucoscopy in:
 - a. Erosive Lichen Planus (LP)
 - b. Aphthous stomatitis

- c. Herpetic gingivostomatitis
d. Pemphigus vulgaris
19. White circles, blood spots, ulceration, white structureless areas and polymorphous vessel are mucoscopic features of:
a. DLE
b. Actinic cheilitis
c. Erosive LP
d. Squamous cell carcinoma
20. A multivariate pattern and presence of multiple colours (blue, grey or white) along with structureless areas are mucoscopic features of:
a. Oral melanotic macule
b. Oral melanoma
c. Oral LP
d. Oral vascular malformation

ANSWERS

1. d - Fordyce's spots, which are ectopic sebaceous glands, present on dermoscopy as whitish to yellowish ovoid structures with a central opacity, often surrounded by branching vessels [Figure 1].^[1] UVFD of Fordyce's spots shows bright fluorescent dots within clods, which correspond to sebaceous gland opening.^[2] Polylobular amorphous structures with peripheral crown vessels are a dermoscopic feature of molluscum contagiosum.^[3]
2. a - lingual varicosities are due to elastolytic degeneration of sublingual veins. They are seen in elderly individuals. Dermoscopy reveals red to dark-blue lacunae arranged in a linear pattern, along with white shiny, featureless areas.^[1]
3. c - The dermoscopic appearance of mucocles evolves as the lesion progresses. Type 1 (classical mucocle) presents with a purplish hue and reticular branching vessels. Type 2 is due to recurrent trauma and displays erythema, hyperkeratotic white areas and indistinct hairpin vessels. Type 3 is end-stage mucocle shows, erythema, yellow areas and prominent hairpin vessels.^[4]
4. b - Lingua villosa nigra also called as black hairy tongue shows brownish hair-like elongation of filiform papillae with whitish lingual papillae on dermoscopy.^[5]
5. d - Pigmented labial macules or labial melanotic macule show 'landscape painting patterns' on dermoscopy. It consists of three features, background brown pigmentation, parallel lines or circular lines and overlapping vessels. The name was derived from a painting by Jeon Seong titled, 'General view of Mt. Geumgangsán'.^[6]
6. d - Key features of mucoscopy of labial DLE include telangiectasia, brown pigment spots, scaling, white featureless areas, bleeding points and erosions. Pigmented dots likely correspond to pigment

- incontinence, while whitish-yellowish scales are associated with hyperparakeratosis. The white structureless areas suggest fibrosis and the pink background with dilated vessels reflects the prominent inflammatory infiltrate.^[7,8]
7. a - In Sjogren's syndrome, four morphological patterns of filiform papillae are seen: (a) type I - normal; (b) type II, in which the papillae are not cornified; (c) type III, which are round and pattern IV (d), which lack papillae. Completely flattened filiform papillae are commonly seen in definitive Sjogren's syndrome.^[9]
8. b - Dermoscopy of aphthous stomatitis shows three zones: outer rim of erythema, middle white structureless region and central yellowish-red area.^[1]
9. d - Mucoscopy of oral LP shows, blunted lingual papillae on areas enclosed within Wickham's striae, white reticular lines corresponding to Wickham's striae and tricolour background-dull pink to red, violaceous and pinkish brown.^[10]
10. b - Plasma cell cheilitis is common seen in elderly affecting lower lip. Histology shows lymphocytic infiltration and degenerative changes in epithelium which corresponds to white structureless area with telangiectasias on dermoscopy.^[11]
11. c - Venous lakes show either a structureless pattern or clusters of purple, red or bluish globules on dermoscopy, corresponding to areas filled with erythrocytes, occasionally containing thrombi.^[12,13]
12. d - Mucoscopic findings of pyogenic granuloma show three primary structures: red homogeneous areas, representing proliferating vessels; a white collarette, which is hyperplastic adnexal epithelium surrounding the lesion's periphery and white 'double rail' lines, corresponding to fibrous septa intersecting the lobules.^[14,15]
13. a - 'Jellyfish in a seas of red' appearance on mucoscopy is seen in eruptive lingual papillitis.^[16]
14. b - Benign migratory glossitis also known as geographic tongue on dermoscopy shows, loss of filiform papillae and white demarcating lines.^[1]
15. b - Oral vascular malformations show thick elongated red-brownish lines on mucoscopy.^[17]
16. c - Dermoscopy of filiform papillae reveals distinct patterns in CTDs, including rheumatoid arthritis, systemic lupus erythematosus, scleroderma and Sjogren's syndrome. These patterns are classified as:
- Type I: Normal (46% in CTD vs. 80% in controls).
 - Type II: Non-cornified papillae.
 - Type III: Round papillae (20%, CTD only).
 - Type IV: Flattened papillae (2%, CTD only).
- Type III and IV patterns have a strong association with CTDs, with Type IV identified as a useful marker in diagnosing Sjogren's syndrome.^[9,18]

17. a - Lingual pigmented fungiform papillae display a 'rose petal' pattern on dermoscopy, marked by projections with pigmented borders. These are interspersed with dichotomised vessels arising from their base, reflecting the confinement of pigment to the papillae's edges.^[19]
18. d - The dermoscopic findings of mucosal lesions in pemphigus vulgaris reveal bright red superficial linear areas (SLA) with sharply defined, jagged margins, indicating mucosal erosions. In contrast, greyish-pink to greyish-white translucent SLAs or lacunae are observed in regions where vesicles remain intact.^[10]
19. d - White circles, blood spots, ulceration, white structureless areas and polymorphous vessel and dilated infundibulum filled with keratin plug are mucoscopic features of squamous cell carcinoma.^[10]
20. b - Mucoscopic examination of oral melanoma reveals multivariate patterns and multiple colours, including blue, grey and white, along with structureless areas. The presence of these varied colours serves as a strong indicator for distinguishing malignant mucosal lesions from benign ones.^[10]

Ethical approval: Institutional Review Board approval is not required.

Declaration of patient consent: The authors certify that they have obtained all appropriate patient consent forms. In the form, the patients have given their consent for their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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