Oral mucosal lesions

As a GP, you will be frequently confronted with patients with oral pathology. Below is a brief differential diagnosis list. Not all conditions will be discussed in detail.

Oral mucosal lesions

- Red / White
    - Leuko-oedema
    - Leukoplakia
    - Erythroplakia
    - Oral hairy leukoplakia
    - Oral lichen planus
    - Candida
- Vesico-Bulleus / Ulcerative
    - Pemphigus / pemphigoid
    - Herpes simplex virus
    - Primary / secondary
    - Aphthous stomatitis ulcers
    - Erythema multiform
    - Eosinophilic granuloma / Toxic granuloma
- Pigmented
    - Intrinsic
        - Melanocytes
            - Nevi
            - Macula
            - Melanoma
        - Syndromic
            - Addison's disease, Cushing disease, Neurofibromatosis
        - Inflammatory
    - Extrinsic
        - Trauma
        - Tattoo
        - Amalgam
        - Drugs

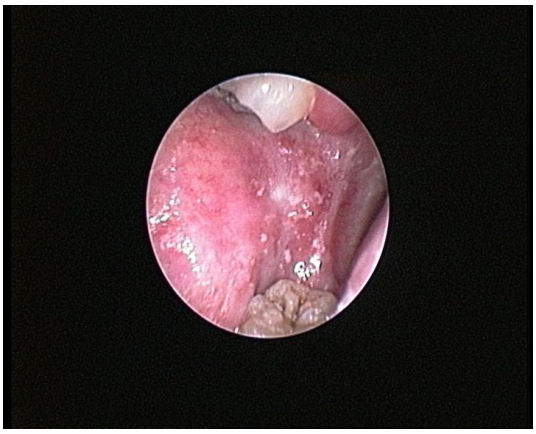
Leukoplakia and Erythroplakia

Leukoplakia and erythroplakia translates to white lesion or red lesion that can't be wiped off respectively. Remember, they can be precursors to head and neck squamous cell carcinomas. As a general rule, 10-15% of these lesions will already harbour squamous cell carcinomas, with erythroplakia having a higher incidence than leukoplakia. They are also discussed in the chapter Head and Neck Cancer.

Their aetiology is the same as the major risk factors known to cause head and neck cancers namely, smoking, tobacco chewing, alcohol, betel nut, and sun exposure on the lower lip (actinic cheilitis). They may have different clinical appearances such as nodular, speckled, and verrucous (see pictures below). Leuko- and erythroplakia can co exists. On histology they might display from hyperkeratosis, acanthosis, dysplasia, carcinoma in situ, and infiltrative cancer cells. Treatment consists of removing the aetiological factors, active surveillance, incisional biopsies, or excisional biopsies. In general, you should identify these as precursors to head and neck cancers

and refer these patients to ENT specialists with an interest in head and neck cancers. Sometimes, one is confronted with patients with extensive erythro-leukoplakic changes. We call this field cancerization or condemned mucosa, whereby multiple mucosal areas, exposed to the same risk factors, are in the process of becoming cancer cells.

The only condition to differentiate between is **leuko-oedema**. This is an extremely common condition and can be seen as a variation of the norm. It occurs mainly in the buccal mucosa and has a more diffuse, opaque whitish appearance compared to leukoplakia. It can also occur in the larynx and vagina. Light pressure applied to the lesion will produce a normal appearing mucosa, that changes to leuko-oedema once pressure is stopped. No specific treatment is needed.



Endoscopic picture showing leuko- and erythroplakia in right retromolar trigone area.

Oral hairy leukoplakia

Very common lesions that present with white streaks on the lateral sides of the oral tongue. It is due to Ebstein Barr virus and has a higher incidence in HIV patients. No definitive treatment is required.

Candida

Extremely common. Remember there are different clinical presentations of Candida in the oral cavity namely:

- Pseudomembranous
- Erythematous
- Atrophic
- Hyperplastic
- Angular cheilitis (fissures in the corners of the mouth)

Remember to exclude local and systemic risk factors such as:

- Local
    - Smoking
    - Foreign bodies such as dentures, nasogastric tubes
    - Radiation
    - Topical steroids
    - Xerostomia
- Systemic
    - Immunosuppression
    - Diabetes

- Steroid therapy
- Antibiotics

The clinical picture is dependent on the site and severity of the infection but can include taste abnormalities, odynophagia, and dysphagia. Treatment includes reversing the underlying factors, local, and systemic antifungals.

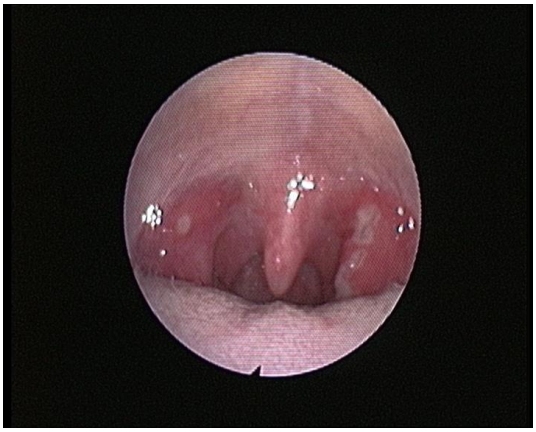
Aphthous ulcers versus Herpes Simplex

Primary herpes simplex virus (HSV) infections affect 60-90% of the world's population. It usually follows 5-7 days after contact with another person, has a prodrome of 48hours, after which the vesicles forms on the lips that lasts 7-14 days. Treatment is systematic with topical steroids and topical antivirals. Some adults will go on to develop repeated HSV infections. Its clinical picture is compared to aphthous ulcers in the table below.

	Aphthous ulcers / stomatitis	**Human Herpesvirus lesions**
Aetiology	Varied, Immune dysfunction	Herpes simplex type I & II
Location	Moveable, non-keratinized mucosa	Keratinized tissue, mucosa
Vesicle phase	No	Yes
Duration	Varies; usually 7-10 days	7-14 days
Management	Topical steroids	Topical steroids Oral antivirals
Prodrome	Uncommon	Often
Triggers	Stress, Light, Foods, Medications	Stress, Trauma
Biopsy findings	Non-specific	Viral cytopathic effect

Aphthous ulcers can be divided into:

- Minor
  - < 10 mm
  - Lasts 7-10 days
  - Heals without scar tissue
- Major
  - > 10 mm
  - Can last up to 6 weeks
  - Very painful
  - Strongly associated with HIV (exclude)
- Herpetiform
  - Multiple <2 mm lesions
  - Rare



Endoscopic picture showing a small ulcer of the right anterior tonsillar pillar and larger ulcers on the left anterior tonsillar pillar.

Tobacco related changes

Tobacco, other than causing cancers, can lead to:

- Gingival retraction
- Dental carries
- Nicotine stomatitis
    - Fissured, cracked leukoplakic changes on hard palate