General dentists are first in the line of practitioners that patients see for an oral lesion evaluation; therefore, a sound understanding of oral mucosal diseases and their clinical presentation is paramount. Accurate diagnosis not only leads to early intervention or specialist referral, but also avoids unnecessary office visits and inappropriate treatments. So, let’s see if you can name that lesion!
A 32-year-old woman presents for evaluation of recurring ulcerations on the tongue. She’s had them for years, but they became more frequent in the past year. They last 10–14 days and are moderately painful, with spicy or acidic foods worsening the pain. She has tried topical anesthetics and “miracle mouthwash” without relief.

A 52-year-old woman presents with “rough areas” on the right and left buccal mucosa. They appear white from self-inspection, but are not painful. She noticed them about a month ago. Pictured above is the right buccal mucosa; the left appears identical. The white lesions cannot be wiped off with gauze.

A 72-year-old woman with a history of medication-induced xerostomia presents with burning of the oral mucosa and an unpleasant taste that began two weeks ago. Clinical exam reveals diffuse, white curdlike lesions surrounded by mild erythema. These lesions wipe off with gauze and leave an erythematous base.
The leaflike denture fibroma is a type of fibrous hyperplasia caused by wearing an ill-fitting denture. The photo is characteristic, with a flattened, pink growth attached to the palate by a narrow stalk. This usually sits in a cupped-out depression on the palate.

The above lesion also shows characteristics of inflammatory papillary hyperplasia, which is a reactive growth of tissue that develops under a denture. It can also be associated with Candida organisms. Risk factors for developing this are an ill-fitting denture, poor denture hygiene and wearing the denture 24 hours a day.

A traumatic ulcer etiology must be considered in areas that show a clear relation to a local injury. While these lesions generally heal in two weeks, they will not heal appropriately if the source of trauma is not removed. In this patient’s case, he needed to stop using the maxillary denture until the site healed, after which a mandibular denture will need to be fabricated.
There are four forms: reticular, erosive, plaque-type and bullous. The reticular form is most common, presenting with characteristic, interlacing white striae (Wickham striae), usually on the posterior buccal mucosae. Reticular lichen planus is not symptomatic, but the erosive form usually presents with painful lesions.

Common mistakes:
Lichen planus is often misdiagnosed as oral candidiasis.

Diagnostic pearls

✔ Follow a systematic approach when evaluating an oral lesion. Recognize normal tissue versus abnormal tissue.

✔ Understand how to establish a differential diagnosis. There are three major categories that represent possible etiologies: developmental, neoplastic and reactive. Developmental lesions are congenital and hereditary. Neoplasms are abnormal growths of tissue, and these may be benign or malignant. Reactive lesions may occur because of trauma, infection, inflammation or autoimmunity.

✔ Understand what types of tissue may be affected by the oral lesion (e.g., epithelium versus connective tissue). This can help in generating the appropriate differential diagnosis.

Common mistakes:
Aphthous ulcerations are often misdiagnosed as recurrent herpes simplex infections.

RAS is an immune-mediated reaction that’s triggered by many factors, including medications, certain foods, trauma, stress, hormonal changes, infections and hematologic abnormalities. RAS may also be associated with systemic conditions like Behçet syndrome, celiac disease and cyclic neutropenia. These ulcerations commonly occur on nonkeratinized tissue and generally last 7–14 days. They are usually 3–10mm in diameter and heal without scarring. Children and young adults are the most affected.

Common mistakes:
Aphthous ulcerations are often misdiagnosed as recurrent herpes simplex infections.

Oral lichen planus, reticular type

Lichen planus is an immune-mediated mucocutaneous disease that occurs through a T-cell-mediated process. It is more common in women and may affect the skin, presenting as purple, pruritic, polygonal papules.

Common mistakes:
Lichen planus is often misdiagnosed as oral candidiasis.
5 **Pseudomembranous candidiasis**

This is the most common form of candidal infection, often referred to as "thrush." Symptoms are generally mild. Presence of infection is dependent on several factors, including host immune status and the oral mucosal environment.

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6 **Mucocele**

A mucocele is a common oral lesion caused by a ruptured salivary gland duct. The mucin then spills into the surrounding soft tissues, forming a dome-shaped, fluctuant swelling. It may increase or decrease in size. Mucoceles are often caused by trauma to the site and, as such, the lower lip is a common site of involvement. While some may rupture and resolve on their own, most require local surgical excision.

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7 **Leukoplakia**

A leukoplakia is a descriptive term for a white plaque or patch that cannot be classified clinically or pathologically as any other disease. It is, therefore, a diagnosis of exclusion. Other disorders that cause white lesions must be excluded before declaring a lesion as leukoplakia.

This type of lesion may be premalignant. Therefore, a biopsy is necessary to rule out other causes of keratosis and to assess for the presence of epithelial dysplasia. Leukoplakia can be characterized as thin, thick, homogenous, nonhomogenous, granular, nodular or verrucous. This particular lesion is a homogenous leukoplakia.

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8 **Squamous cell carcinoma**

Squamous cell carcinoma is the most common type of oral malignancy. While a single causative agent has not been identified, risk factors include tobacco and alcohol use. Squamous cell carcinoma may also be preceded by a precancerous lesion, such as leukoplakia. High-risk sites are the tongue and floor of mouth. Early detection is paramount. Prompt referral to a head and neck surgeon is necessary for a comprehensive diagnostic work-up and treatment.

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9 **Recurrent herpes simplex infection**

This lesion is a result of reactivation of the herpes simplex virus (HSV-1), which is spread through infected saliva or active perioral lesions. Various triggers can cause recurrent HSV, such as ultraviolet light, stress, dental treatment, pregnancy, allergy, trauma and menstruation. Prodromal signs (e.g., burning, tingling, erythema, itching) may occur before the lesion develops. The vermilion border of the lip and adjacent skin is a common site of involvement. Intraoral mucosa can also be affected, which involves the keratinized mucosa (hard palate and attached gingiva).