
COMMON MOUTH DISEASES



PART I: THE LIPS AND GUMS

Typically, mouth diseases have been a neglected component of medical training. A proper mouth inspection is, however, a very important part of a medical examination.

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A careful evaluation of the clinical features of an oral mucosal lesion is important in directing further investigation, such as biopsy, culture and serological testing.

The various individual components of the oropharynx should be examined sequentially with the patient facing a good natural source of light. This is important when looking for cyanosis, pallor and excessive redness of the lips, gums, tongue and the buccal mucosa.

ANGULAR CHEILITIS

Angular cheilitis or stomatitis is an acute inflammation of the lips with painful fissuring and scaling at the angles of the mouth

(Figure 1) which are usually the result of physical damage to the lips by sunlight, cold wind or ill-fitting dentures. In such cases the skin and mucosa at the corners of the mouth becomes macerated due to dribbling saliva, causing fissuring of the angles of the mouth. A deficiency of the Vitamin B complex, especially of riboflavin, also can be responsible for such presentations.¹ Sometimes, angular cheilitis is complicated by a monilial infection.

Most patients need correction of the malocclusion, which is frequently not feasible. Local 1% hydrocortisone, in combination with a topical anti-yeast preparation, is recommended. In some cases, an oral vitamin B complex, especially riboflavin, is helpful.

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Figure 1: A woman with a long history of sores at the corners of her mouth.

HERPES SIMPLEX

The most prevalent infection of the lips is herpes simplex (HS), which can present

itself as a simple vesicle or as a cluster of vesicles, extended to the mucosa with ulcerations. (Figure 2). Approximately 40% of the North American population is infected with recurrent herpes. Shortly before eruption, patients experience burning pain and itching, which is followed by erythema and finally by small grouped vesicles on the erythematous base. Within 48 hours, the vesicles become pustular and crusted. Usually, there is no regional adenopathy.¹⁻⁵

The most common clinical manifestation of the primary HS, HSV-1, is acute gingivostomatitis (Figure 3) which usually appears in children one to five years of age. It is seldom present in adolescents or in young adults and it never appears in infants under the age of one, as they are protected by the transplacental transfer of passive antibodies from the mother.⁴

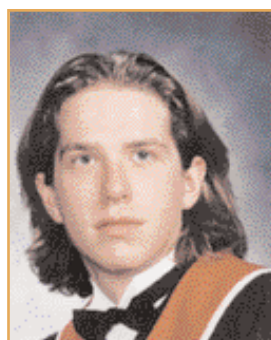
Symptoms can range from mild to extremely severe. Fever, irritability and a sore mouth are most characteristic of this condition. Fever may persist for a few days and the gums may be red, swollen and even bleeding. Vesicles first appear on the gingiva and then spread to the mouth, tongue and pharynx. They are usually uniform in size



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and, when ruptured, produce shallow painful ulcerations. Most often, the anterior cervical nodes become enlarged and tender. Gingivitis (vesicles and ulcerations on the gingiva) is the most significant guide in differentiating herpes from erythema multiforme.^{1-3,5}

Typical cold sores can be treated with ordinary acyclovir cream. For more serious symptoms or primary gingivostomatitis, oral valacyclovir or famciclovir is suggested.

TUMOURS

Squamous cell carcinoma is the most common malignant oral tumour. Most of these occur on the lower lips (Figures 4 and 5). About half of the intraoral tumours involve the tongue. Primarily, it is the posterior two-thirds and the lateral border which is involved (Figures 6 and 7). Any chronic, relatively painless ulcer with a palpable indurated border should be treated as suspicious.^{1,6}

The lower lip vermilion is the most common site of oral cancer and, in most cases, wedge resection of the tumor is necessary



Figure 2: Grouped, umbilicated vesicles, characteristic of Herpes Simplex.



Figure 3: Acute gingivostomatitis, which is seldom present in adolescents and young adults.



Figure 4: Most squamous cell carcinomas occur on the lower lips (early stage).



Figure 5: Lower lip squamous cell carcinoma (later stage).

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Figure 6: The first symptoms of tongue cancer manifested as a lump on the right side of the neck during the initial examination of a 51-year-old man.

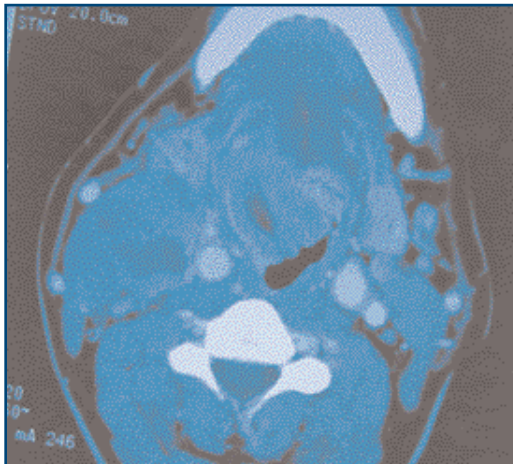


Figure 7: A CT scan of the neck shows the lateral spread of the tumour.



Figure 8: A bluish, compressible nodule on the upper lip is a typical presentation of cavernous hemangioma.

for treatment. This cancer has a very good prognosis with an approximately 90% five-year survival rate with metastases occurring in relation to local, but advanced, disease.

A cavernous hemangioma is a bluish, compressible nodule that may occur on the lips (Figure 8). Warts are a result of the human papilloma virus infection. They are frequently seen on the lips where the lesions appear flat, and in the mouth where they are often raised and pedunculated (Figure 9).^{1,5} Warts can be removed by excision or cryotherapy.

ULCERS

Aphthous ulcers are the most common cause of oral ulcerations, affecting 30% of the general population. They are characterized by sharply demarcated, round or oval ulcers with an erythematous halo (Figure 10). The etiology remains unclear. Most of the ulcers heal without any treatment after one to several weeks.^{1,2,5} Some recurrent ulcers which are clinically indistinguishable from aphthous ulcers, however, may occur in patients with inflammatory bowel disease. The course of the oral ulcers, in this case, closely parallels the exacerbations of the bowel disease.

Aphthous ulcers also can be part of Behçet's syndrome, a systemic inflammatory disease of unknown etiology. It is characterized by a triad of oral ulcers and ocular inflammation, and affects mostly young male adults.^{2,3,5}

Traumatic ulcers may result from biting of the lip, cheek or tongue, as well as rubbing these mucosae with the sharp edges of teeth and dentures. Sometimes, clinical differentiation of these ulcers from malignant

ulcers is difficult, especially when the ulcers persist for weeks and become associated with an induration of surrounding tissues.^{2,6}

Aphthous ulcers are classified into three subdivisions: minor, major and herpatiform. Treatment consists of topical triamcinolone acetonide ointment, applied twice daily to the dried mucosa. An intralesional triamcinolone injection may heal a refractory ulcer. Alternately, a mouthwash made by dissolving a 250 mg capsule of tetracycline in water, can be used.⁵ In more severe cases, or where the mouth condition is associated with genital or conjunctival ulcers, as in Behçet's syndrome, prednisolone may be necessary.⁵

CYSTS

Trauma to the ducts of minor salivary glands can cause their severance or occlusion, leading to the formation of a mucous extravasation or retention cyst. These structures, known as mucoceles, appear as small, bluish, dome-shaped lesions and are most commonly found on the lower labial mucosa (Figures 11 and 12).

POLYPS

The fibroepithelial polip is the most common growth found in the oral cavity (Figure 13). It is a reactive proliferation of epithelial and connective tissue in response to chronic low-grade irritation. The areas usually affected are the buccal mucosa, gingiva, tongue, lips and palate.⁶ Treatment consists of a simple excision and submission of a sample for pathological evaluation.

GUM DISEASE

The gums, part of the teeth-supporting sys-



Figure 9: Common warts around the mouth.



Figure 10: Sharply demarcated, oval ulcer with an erythematous halo.



Figure 11: Mucoceles are usually located in the mucosa of the lower lip.

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Figure 12: Mucoceles sometimes can involve the floor of the mouth (ranula).



Figure 13: This condition was caused by the chronic biting of the buccal mucosa.



Figure 14: Hyperplasia of the gums, resulting from long-term phenytoin therapy.

tem, cover and protect the underlying tissues. Together with the alveolar bone, the gums form the main components of the periodontium. Periodontal disease is very common in the general population. Red, swollen and friable gums are typically symptoms of gingivitis.¹ The inflamed gingival papilla can form epulis. Hyperplasia of the gums (Figure 14) is frequently seen after long-term phenytoin therapy for epilepsy. Strokes and transient ischemic attacks (TIAs) occur about 2.5 times more often in those who have poor dental status — *i.e.*, having cavities, periodontitis, gingivitis or infections within the bone.⁷

CONCLUSION

As we have seen, ignoring mouth diseases has costly consequences. It is, therefore, critical that mouth diseases cease to be a neglected aspect of medical examinations. Without a careful inspection of the face, oropharynx and regional lymph nodes, diagnoses may be delayed, resulting in morbidity and, in some cases, mortality.

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