ORAL MEDICINE

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White& Red lesions- part (2)

Red lesions are a large, heterogeneous group of disorders of the oral mucosa. Traumatic lesions, infections, developmental anomalies, allergic reactions, immunologically mediated diseases, premalignant lesions, malignant neoplasms, and systemic diseases are included in this group. The red color of the lesions may be due to thin epithelium, inflammation, dilatation of blood vessels or increased numbers of blood vessels, and extravasation of blood into the oral soft tissues, inflammation

Erythroplakia

Definition: Erythroplakia, or is a premalignant lesion occurring on the oral mucosa. It is defined as a red, nonspecific patch or plaque that cannot be classified clinically and pathologically under any other diseases

Clinical features: It appears as a usually asymptomatic, fiery red, well demarcated plaque, with a smooth and velvety surface. The red lesions may be associated with white spots or small plaques. The floor of the mouth, retromolar area, soft palate, and tongue are the most common sites of involvement. Erythroplakia occurs more frequently between the ages of 50 and 70 years. Over 91% of erythroplakias histologically demonstrate severe dysplasia, carcinoma in situ, or early invasive squamous-cell carcinoma at the time of diagnosis

Differential diagnosis: Erythematous candidiasis, lichen planus, discoid lupus erythematous, early squamous-cell carcinoma, local irritation

Treatment: Surgical excision.

The most common red lesions

Traumatic Erythema

Definition and etiology: Traumatic erythema occurs when a traumatic effect results in hemorrhage within the oral tissues.

Clinical features Traumatic erythema can present either as an ecchymosis or as a hematoma. Clinically, it appears as an irregular, usually flat, area with a bright or deep red color. The lips, tongue, and buccal mucosa are the most common areas affected. The diagnosis is based on the history and the clinical features.

Differential diagnosis: Hematomas due to anticoagulant drugs , thrombocytopenia.

Treatment: No treatment is required.

Thermal Burn

Definition and etiology : Thermal burns to the oral mucosa are fairly common, usually due to contact with very hot foods, liquids, or hot metal objects.

Clinical features : Clinically, the condition appears as a red, painful erythema that may undergo desquamation, leaving erosions. The lesions heal spontaneously in about a week. The diagnosis is made exclusively on clinical grounds.

Differential diagnosis: Chemical burn, traumatic lesions, herpes simplex, aphthous ulcers, drug reactions.

Treatment: No treatment is required (spontaneous healing).

Radiation Mucositis

Definition and etiology: Oral radiation mucositis is a side effect of radiation treatment of head and neck tumors.

Clinical features :The oral lesions are classified as early and late, early reactions may begin at the end of the first week of radiotherapy, and consist of erythema and edema of the oral mucosa, soon after ulcers or erosion may develop, covered by a whitish-yellow exudate, xerostomia, loss of taste, burning and pain during mastication, swallowing, and speech are common. The diagnosis is made clinically.

Differential diagnosis: mucositis due to chemotherapy, erythema multiforme , herpetic stomatitis, lichen planus.

Treatment :supportive cessation of the radiation treatment, B-complex vitamins, and sometimes low doses of steroids are indicated.

Denture Stomatitis

Definition& Etiology: Denture stomatitis, or denture sore mouth, is a frequent condition in patients who wear dentures continuously for extended times.

Mechanical irritation from dentures, Candida albicans, or a tissue response to microorganisms living beneath the dentures.

Clinical features: the condition is characterized by diffuse erythema, edema, and sometimes petechiae and white spots that represent accumulations of candidal hyphae, papillary hyperplasia, or granular mucosa in central part of palate, erythema almost always located in the denture bearing area of the maxilla , The condition is usually asymptomatic. The diagnosis is based on clinical criteria.

Systemic azoles may be used for deeply seated primary candidiasis, such as chronic hyperplastic candidiasis, denture stomatitis, and median rhomboid glossitis with a granular appearance,Type III denture stomatitis may be treated with surgical excision in an attempt to eradicate microorganisms present in the deeper fissures of the granular tissue. If this is not sufficient,continuous treatment with topical antifungal drugs should be considered

Differential diagnosis: Allergic contact stomatitis due to acrylic.

Erythematous Candidiasis

Definition& **Etiology** : Erythematous candidiasis is a relatively common form of candidiasis, with a high incidence in HIV-infected patients and rarely in patients receiving broad-spectrum antibiotics or steroids which cause suppression of normal oral flora, the recovery will occur Following removal of antibiotic. Other predisposing factors that can cause erythematous candidiasis are smoking.EC may be acute or chronic.

Clinically: it is characterized by erythematous patches or large areas, usually located on the dorsum of the tongue and palate, burning sensation is a common symptom. The lesion has a diffuse border which helps distinguish it from erythroplakia which usually has a sharper demarcation

The diagnosis can typically be made from the clinical appearance. As candidiasis can be variable in appearance, and present red or combined white and red lesions, the differential diagnosis can be extensive. In pseudomembraneous candidiasis, the membranous slough can be wiped away to reveal an erythematous surface underneath. This is helpful in distinguishing pseudomembraneous candidiasis from other white lesions in the mouth that cannot be wiped away, such as lichen planus, oral hairy leukoplakia, erythematous candidiasis can mimic geographic tongue and usually has a diffuse border that helps distinguish it from erythroplakia, which normally has a sharply defined border

Treatment: Oral candidiasis can be treated with topical anti-fungal drugs, such as nystatin, miconazole, If candidiasis is secondary to corticosteroid or antibiotic use, this may be stopped, although often this is not a feasible option depending on the initial reason the drug was prescribed. Underlying immunosuppression may be medically manageable once it is identified, and this helps prevent recurrence of candidal infections.

Angular chilitis

Definition& Etiology: is infected fissures of the commissures of the mouth surrounded by erythema, the lesion show candida and staphylococcus aurease, other predisposing factors vitamin B12 deficiencies, iron deficiency anemia and loss of vertical dimension

Dry skin may promote the development of fissures in the commissures, allowing invasion by the microorganisms. 30% of patients with denture stomatitis also have angular cheilitis, but this infection is only seen in 10% of denture-wearing.

Topical treatment with azoles such as miconazole is the treatment of choice for angular cheilitis often infected by both S. aureus and candidal strains (biostatic effect on S. aureus in and fungistatic effect) If angular cheilitis comprises an erythema surrounding the fissure, a mild steroid ointment may be required to suppress the inflammation.

Median Rhomboid Glossitis

Definition& Etiology: Median rhomboid glossitis is a rare condition that occurs exclusively on the dorsum of the tongue, the etiology is not fully clarified presumably developmental, the lesion show bacterial /fungal micro flora.

Clinical features :It presents as a well-demarcated erythematous rhomboid area along the midline of the dorsum of the tongue, immediately anterior to the circumvallate papillae. The surface of the lesion may be smooth or lobulated.

Differential diagnosis: Candidiasis, geographic tongue, syphilis

Treatment : asymptomatic lesion, no treatment is required

Erosive lichen planus:

Is a destructive autoimmune disorder causes painful and persistent ulcers, these heal with scarring. It mainly affects adults, particularly women, and is rare in children.

Desquamative Gingivitis

Definition: desquamative gingivitis is a clinical descriptive term used for nonspecific gingival manifestation of several chronic mucocutaneous diseases.

Etiology: With rare exceptions, an autoimmune mechanism is responsible. Cicatricial pemphigoid and lichen planus are the most common diseases related to desquamative gingivitis, less frequently, bullous pemphigoid, pemphigus, linear IgA disease, epidermolysis bullosa, chronic ulcerative stomatitis, discoid lupus erythematosus may be the underlying disease entity.

Clinical features: It presents as erythema and edema of the marginal and attached gingiva. The facial surface is more frequently affected than the lingual gingiva. Spontaneous desquamation of the epithelia, blister formation, and areas of superficial erosions are common. Characteristically, after mild pressure on the affected gingiva, desquamation of the epithelium or hemorrhagic blister formation usually occur,the lesions may be either localized or generalized ,desquamative gingivitis may be the only oral manifestation or may be associated with additional oral lesions of the underlying chronic bullous dermatosis. Women over 40 years of age are more frequently affected. The clinical diagnosis should be confirmed by histopathological and immunological examinations.

Differential diagnosis: Necrotizing ulcerative gingivitis, plasma cell gingivitis, plaque related gingivitis, drug reactions, granulomatous gingivitis, oral psoriasis.

Treatment: Good oral hygiene, avoidance of any mechanical pressure on the gingiva ,systemic treatment (corticosteroid ,immunosuppressants ,dapsone) depends on the identification of the underlying disease.

Contact Allergic Stomatitis

Definition: Contact allergic stomatitis is a rare acute or chronic allergic reaction.

Etiology : Denture base materials, restorative materials, mouthwashes, dentifrices, chewing gums, foods, and other substances may be responsible.

Clinical features: Clinically, in the acute form, the affected mucosa presents with diffuse erythema and edema, and occasionally small vesicles and erosions. A burning sensation is a common symptom. In the chronic form, hyperkeratotic white lesions may be seen in addition to erythema.

Differential diagnosis: Denture stomatitis, erythematous candidiasis, erythroplakia, leukoplakia, drug reactions.

Treatment: Removal of suspected allergens, topical or systemic steroids, antihistamines.

Lupus Erythematosus

Definition: Lupus erythematosus is a chronic immunologically mediated disease there are two forms of lupus, DLE affecting the skin and mucous membranes, and SLE which may also affect joints, visceral organs, and other tissues.
Etiology: Autoimmune
Environmental factors are of importance as sun exposure, drugs, chemical substances, and hormones which all have been reported to aggravate the disease. A genetic predisposition is supported by an elevated risk for siblings to develop LE ϖ More than 80 different drugs have been associated with the onset of SLE, including hydralazine, methyldopa, chlorpromazine, isoniazid, quinidine, and procainamide
This is immune related, multi-organ disease, affecting females more than males.
Clinical features oral lesions develop in 15–25% of cases in DLE and in 30–45% of cases in SLE, usually in association with skin lesions, the oral lesions are characterized by a well-defined central atrophic red area surrounded by a sharp elevated border of irradiating whitish striae and hyperkeratotic plaques may be seen, lesions particularly affects the palate, DLE characterized with butter fly rash at the malar area, it may predispose to oral carcinoma.
Histopathological test is very helpful, direct immunofluorescence can be used.

Laboratory Findings
1. Antinuclear antibodies patients with other rheumatologic diseases, such as Sjogren's syndrome and rheumatoid arthritis)
2. Moderate to high titers of anti-DNA and anti-Smith antibodies are almost pathognomonic of SLE.
3. Direct immunohistochemistry to reveal granular deposition of IgM, IgG, IgA, and C3 (lupus band test
Differential diagnosis: Lichen planus, geographic glossitis, speckled leukoplakia, , cicatricial pemphigoid.
Treatment: Treatment of SLE is essentially with steroids, often required in high doses.
Treatment of DLE is often symptomatic with the use of potent topical steroids to suppress the lesions.

Anemia

Pernicious anemia, iron deficiency anemia, and Plummer–Vinson syndrome usually affect the oral mucosa. The oral manifestations are early and common, and are characterized by an atrophic, smooth and red tongue. A burning sensation, taste loss, angular cheilitis, and rarely erosions may be present. The differential diagnosis includes atrophic lichen planus and malnutrition disorders. The diagnosis is based on hematological laboratory tests.

Thrombocytopenic Purpura

Definition : Thrombocytopenic purpura is a hematological disorder characterized by a decrease in platelets in the peripheral blood.

Etiology: Presumably a nonspecific viral infection, myelotoxic agents.

Clinical features: The oral manifestations consist of red lesions in the form of petechiae, ecchymosis, or even hematomas, usually located on the palate and buccal mucosa. Spontaneous gingival bleeding is a constant early finding, purpuric skin rash, epistaxis, and bleeding from the gastrointestinal and urinary tract are common.

Differential diagnosis: Aplastic anemia, leukemia's, polycythemia Vera, agranulocytosis, macroglobulinemia, drug reactions.

Treatment: Steroids, platelet transfusions, cessation of drug treatment if it is drug-related.

Reiter Disease

Definition: Reiter disease is an uncommon multisystem disorder that predominantly affects young men aged 20–30 years.

Etiology : The exact etiology remains unknown, although they may be triggered by an infectious agent in a genetically susceptible individual.

Clinical features: The main clinical manifestations are urethritis, symmetrical arthritis of six to seven joints, conjunctivitis, prostatitis, cervicitis, and mucocutaneous lesions. The cutaneous manifestations appear as macular, vesicular, or pustular lesions involving mainly the palms and soles.. Oral lesions occur in 20–40% of the cases and are characterized by diffuse erythematous areas intermixed with thin whitish dots or lines and painful superficial erosions. The buccal mucosa, gingiva, palate, lips, and tongue are more frequently affected. The tongue lesions may mimic geographic tongue. The clinical diagnosis should be confirmed by biopsy and histopathological examination.

Differential diagnosis: The differential diagnosis of oral lesions includes Behçet disease, erythema multiforme, geographic tongue, and drug reactions.**Treatment:** Systemic corticosteroids and nonsteroidal anti-inflammatory agents are the drugs of choice.