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Non – Neoplastic Oral Ulcers

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ABSTRACT:

Regarding oral mucosa, oral ulcers are common complaints of patients. Ulcers refers to damage of epithelium and connective tissue or both. Most common cases are due to physical trauma, infective diseases immune related and neoplastic. A detailed history of patient is mandatory in assessing oral ulcerative lesions. Clinical presentation varies depending upon drugs involved, trauma. Diagnosis of oral ulcerative lesions are challenging. Additional diagnosis is required in patients not responding to treatment. Histopathological examination is required in case of definite clinical verification purpose. The aim of this article is to briefly explain about non-neoplastic oral ulcers.

Keywords: *Ulcer, necrosis, malignant.*

INTRODUCTION:

Ulcerations are characterized by defect in epithelium, connective tissue, or both. Diagnosis of oral ulcerative lesions might be challenging. Lesions that lasts for more than two weeks and longer are considered as chronic; otherwise it is an acute ulcer. Apthous ulceration is more common in women under the age of 40, non-smokers. Most common benign ulcerative lesions of the oral mucosa are recurrent apthous stomatitis (RAS) commonly seen in younger patients.

AETIOLOGY:

The most common aetiological factor is due to trauma, recurrent apthous ulcerations, infective ulcers and radiation ulcers.

CLASSIFICATION:

- Clinical ulcers
- Pathological ulcers

CAUSES OF ORAL ULCERATIONS:

- Trauma
- Infective Diseases
- Immunological Diseases

Traumatic ulcerations:

Traumatic injury can occur by the following;

- Mechanical
- Chemical
- Thermal
- Factitious
- Radiation

Immunological oral ulcers:

- Idiopathic ulcers
- Behcet's syndrome
- Reiter's syndrome
- Erythema multiforme
- Drug reactions
- Contact allergies
- Wegner's granulomatosis
- Midline granuloma
- Chronic granulomatous diseases
- Cyclic neutropenia

Infective oral ulcers:

- Bacterial
- Viral
- Fungal

Clinical ulcers:

Spreading – with surrounding inflammation.

Healing – slopping edge with red granulation tissues.

Callous – ulcer with no tendency to heal with pale granulation tissues

Pathological ulcers:

Ulcers are classified based on their etiology.

Mechanical ulcerations:

Most common form of oral ulcer. Mechanical trauma occurs through biting the mucosa, ill-fitting dentures, orthodontic appliances, exposure of the mucous membrane to sharp cusp tip or carious lesions, tooth brush injury.

Cotton roll injury is a common reaction when dry cotton is placed in mouth and removed roughly mucosa adhering to it is torn.

Chemical ulcerations:

Many chemicals may cause oral ulcerations. Hydrogen peroxide, Aspirin, Silver nitrate. Ulcerations may occur due to agents used in dental practice also long-term usage of 3 percent hydrogen peroxide for more than 2 minutes and followed by consuming sea food had found discomfort in oral mucosal areas. Use of antiseptic mouthwashes and aspirin may also lead to chemical ulcerations. Usage of aspirin is mainly considered as time and dose dependent long term usage may also lead to several changes from oedema to necrosis of the epithelium.

Thermal ulcerations:

Consuming very hot foods or drinks may also lead to ulcerations in any parts of oral mucosa but most commonly seen in palate area.

Factitious ulcers:

Manifestation of stress, emotional disturbances, anxiety are common cause of ulcerations. Chewing of lips, cheeks, tongue, self-biting of buccal vestibule or nail- scratching of gingival tissues are also other form which causes ulcerations.

Radiation ulcers:

Wounds are caused by the acute or chronic effects of ionizing radiation. Due to radiation salivary glands may forward to a state of xerostomia and frictional damage. Immediate effects show erythemia, radiation mucositis and ulceration. Atrophy of mucosa. Injury may also involve the deep structures and bones.

IMMUNOLOGICAL ORAL ULCERS:

Idiopathic ulcers:

Characterised by frequent reccurrences such ulcers are termed as Recurrent apthous stomatitis (RAS). Also characterized by the development of painful, recurring solitary or multiple ulcerations of the oral mucosa[1].Three main clinical presentations are Minor apthous ulcer, Major apthous ulcer, Herpetiform ulcer.

Recurrent apthous stomatitis:

RAS common non-infectious and non-traumatic oral mucosal ulcerative disorder. Clinically characterized by recurrent bouts of ulcers, arises every 4-12 weeks. Cause of RAS remains unclear [2].

Treatment- Chlorhexidine gluconate mouth rinse have some benefit [3]. Benzydamine hydrochloride spray have some symptomatic relief but does not heal ulcer. Anti-microbial mouthwash and topical medications can achieve alter rate of recurrence [4].

Conclusion:

No genetic predisposition to RAS in most patients. Few studies have proved that anti-inflammatory agent have reduced the severity of RAS. Etiological involvement of Helicobacter pylori does not appear [5].

BEHCET'S SYNDROME:

Behcet's disease is a chronic relapsing and remitting vasculitis of unknown etiology. It has the potential to involve both arteries and veins so it affects almost all the organs so threatening to morbidity and mortality. Also known as "silk road" diseases in world wide occurrence. Patients with Behcet's syndrome, on electron microscopic examination revealed the presence of large number of centrifuged pellets of serum [6]. Immune related complexes were more common in neuro ocular type of Behcet's syndrome than in mucocutaneous type [7]. Thalidomide for treating oral and genital ulcers provide an effective role in patients with Behcet's syndrome. A dose of 100mg/day is an effective dose of 300 mg/day [8].

REITER'S SYNDROME:

Reiter's syndrome, also known as reactive arthritis, triad of conjunctivitis, urethritis and arthritis occurring after an infection. Symptoms also include stiffness, joint pain, commonly in knees, ankles and feet. Pathophysiology although infection and immune factors are likely involved. Clinical presentation, severity and prognosis vary widely. Diagnosis varies from one physician to another [9].Treatment procedure is difficult, especially in HIV – positive patients [10].

ERYTHEMA MULTIFORME:

Erythema multiforme is a self-limiting and sometimes recurring skin condition Considered as hypersensitivity reaction associated with infections and medications [11]. Erythema minor affects only skin where as major includes mucocutaneous involvement. Erythema multiforme was as the same pathologic spectrum as Stevens – Johnson syndrome (SJS). Lesions begin as pink or red papules which later become papules. Causes burning or itching, over next three to five days shows variety of appearances called as target or iris lesions. Diagnosed clinically, based on patient's history and physical examination, most important is to ask about the recent symptoms of infections (e.g.HSV,M.pneumoniae) and medications consumed by the patients. Management involves topical steroids or antihistamines. Associated with herpes simplex should be treated with antiviral therapy. Severe mucosal form can require hospitalization for repletion of electrolytes and intravenous fluids.[12]

DRUG REACTIONS:

Affects skin or mucosal area. Erythema, vesicles may be seen: Alendronate (Bisphosphonate),Methotrexate(Chemotherapy),NSAIDS(Nicorandil).Anaphylaxis or angioedema may require emergency care.

CONTACT ALLERGIES:

Dental related allergies because of dental materials. Contact allergies of oral cavity mainly because of T- cell mediated (delayed) Hypersensitivity reactions [13]. Clinical manifestation includes burning, pain and dryness of mucosa. Topical antiseptic, local anesthetic and antifungal are used in treatment purpose.

WEGNER'S GRANULOMATOSIS:

Wegener's granulomatosis is a complex disease that can be difficult to diagnosis, especially if the clinical triad is not present [14].Clinical features may include inflammatory lesions of the lungs, kidney and upper airway; May also affect gingiva intraorally. Granulomatosis with polyangiitis has no cure, but the long- term outlook, with appropriate medical treatment is very good.

MIDLINE GRANULOMA:

Midline granuloma is a condition in which necrotic and highly destructive lesions develop in the middle of the face, nose and palate. Nasal NK/cell lymphomas are angiocentric lymphomas that are present as midline facial destructive diseases(lethal midline granuloma) [15]. Prognosis is poor when it includes blood vessels.

CHRONIC GRANULOMATOUS DISEASES:

Chronic granulomatous diseases (CGD) was first described in 1954 and 1957 but was not recognized until 1959 [16]. Most commonly occurs in males. It's a genetic disease (X-LINKED). Appears in childhood due to manifestations of X-LINKED inheritance pattern.

CYCLIC NEUTROPENIA:

Cyclic neutropenia is a rare hematologic disorder characterized by repetitive episodes of fever, mouth ulcers and infections [17].Results in rare blood dyscrasia.

INFECTIVE ORAL ULCERATIONS:

BACTERIAL: Syphilis, Gonorrhea, Tuberculosis, Noma, Actinomycosis.

VIRAL: Herpes simplex ,varicilla zoster, HIV, Coxsakie A virus.

FUNGAL: Deep fungal infections, Aspergillosis, Phycomycosis.

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