Flipped classroom teaching – Module 1

Oral Ulcerative Lesions

Classification

and

Recurrent aphthous stomatitis

21.8.2017

Dr Mahima V Guledgud, MDS,

Department of Oral Medicine and Radiology

JSS University, Mysuru

Outline of the class

- Introduction
- Classification of Oral ulcerative lesions
- Recurrent Aphthous Stomatitis (RAS)
  - Etiopathogenesis
  - Clinical Features
  - Diagnosis & Investigations
  - Management
- Summary
- Conclusion

Objective:

At the end of this class, the final year BDS students (August 2017 – July 2018 batch) of JSS University shall be competent

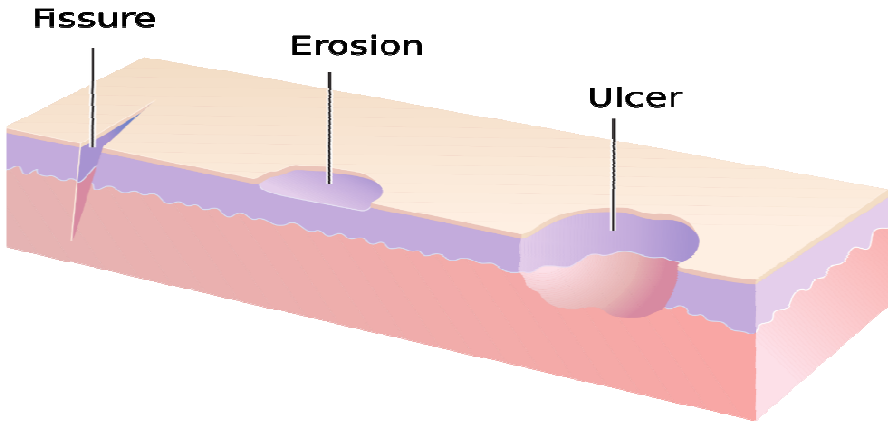
- to classify and list the oral ulcerative lesions
- to describe the etiopathogenesis, clinical features, diagnosis and management of Recurrent aphthous stomatitis.

Introduction

Ulcer:

- A lesion of the skin or of a mucous membrane, that is accompanied by formation of pus and necrosis of surrounding tissue, usually resulting from inflammation or ischemia

- A break in skin or mucous membrane with loss of surface tissue, disintegration and necrosis of epithelial tissue, and often pus



Parts of Ulcer

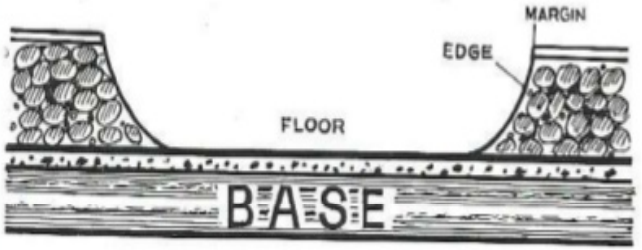


Fig.4.14.— Diagrammatic representation of various parts of an ulcer. See the text.

- Margin – junction between normal epithelium and ulcer
- Edge – area between margin and floor of ulcer
- Floor – exposed surface of ulcer
- Base - where ulcer rests on

Classification

According to clinical course:

- Acute lesions:

- ANUG
- Aphthous ulcers
- Herpetic gingivostomatitis

- Chronic lesions:
  - Malignant ulcer
  - Traumatic ulcer
  - Tuberculous ulcer

- Recurrent lesions:
  - Aphthous ulcers
  - RHL/RIH
  - Cyclic neutropenia
  - Behcet's syndrome

According to onset:

- Primary lesions:
  - Traumatic ulcers
  - Malignant ulcers
  - Tuberculous ulcers
- Secondary lesions:
  - Herpes zoster
  - AHGS/ RHL/RIH
  - Pemphigus

According to number:

- Solitary ulcers:

- Traumatic ulcers
- Malignant ulcers
- Tuberculous ulcers
- Deep fungal ulcers

- Multiple ulcers:
- AHGS/ RHL/RIH
- Aphthous ulcers
- Pemphigus
- Erythema multiforme

According to etiology:

- Traumatic ulcers:
  - Physical
    - TUGSE
    - Traumatic ulcer
  - Chemical
    - Chemical burn
    - Aspirin burn
  - Thermal
    - Pizza burn
    - Electric burns

- Infectious ulcers:
  - Bacterial
    - Tuberculous ulcer
    - Syphilitic ulcer
    - Leprosy
    - ANUG

- Viral ulcers
- AHGS/ RHL
- Herpes zoster
- Herpangina
- Hand, foot & mouth disease

- Fungal ulcers
- Candidiasis
- Mucormycosis
- Histoplasmosis
- Cryptococcosis
- Blastomycosis

- Autoimmune/ Immune mediated:
- Pemhigus
- Pemphigoid
- Erythema multiforme
- Lichen planus
- Discoid lupus erythematosus

- Nutritional deficiencies:
  - Vitamin B complex
  - Iron

- Hematologic disorders:
  - Leukemia
  - Agranulocytosis
  - Neutropenia/ cyclic

- Neoplastic ulcers:

- Squamous cell carcinoma
- Adenoid cystic/ adenocarcinoma
- Mucoepidermoid carcinoma
- Melanoma
- lymphoma

- Preneoplastic ulcers:
  - Lichen planus
  - Oral submucous fibrosis
  - Discoid lupus erythematosus

- Miscellaneous
  - Allergic stomatitis

Recurrent Aphthous Stomatitis

- The term “aphthous” is derived from a Greek word “aphtha” which means ulceration
- Common non traumatic ulcer/condition of the oral cavity - affects about 20% of the general population
- Typical appearance in childhood or adolescence

Common in

- Students/professionals
- Upper socioeconomic group
- Females
- Non smokers
- Developed countries

Pathogenesis

- Primary immunodysregulation
- Decreased mucosal barrier
- Heigthened antigenic sensitivity

Predisposing factors

- Microbes –streptococci, Helicobacter pylori, VZV, CMV, HHV-6, HHV-7 - ???
- Genetic factors
- Hematologic deficiencies- iron, folate, Vit B12
- Immunologic abnormalities
- Local trauma
- Anxiety
- Psychological stress
- Menstruation
- Upper respiratory infections
- Food allergy

Clinical features

Types

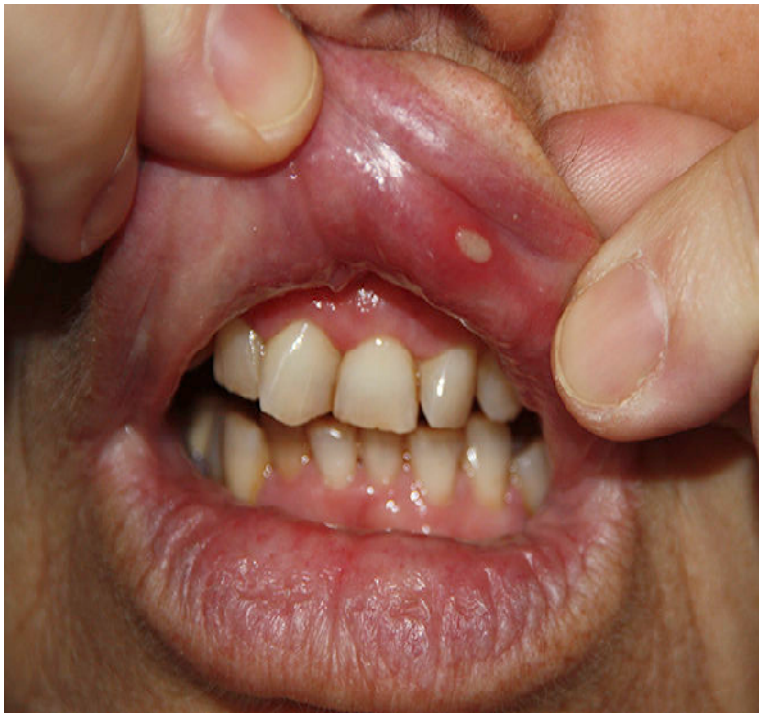
- Minor ulcers
- Major ulcers
- Herpetiform ulcers
- Severe minor ulcers

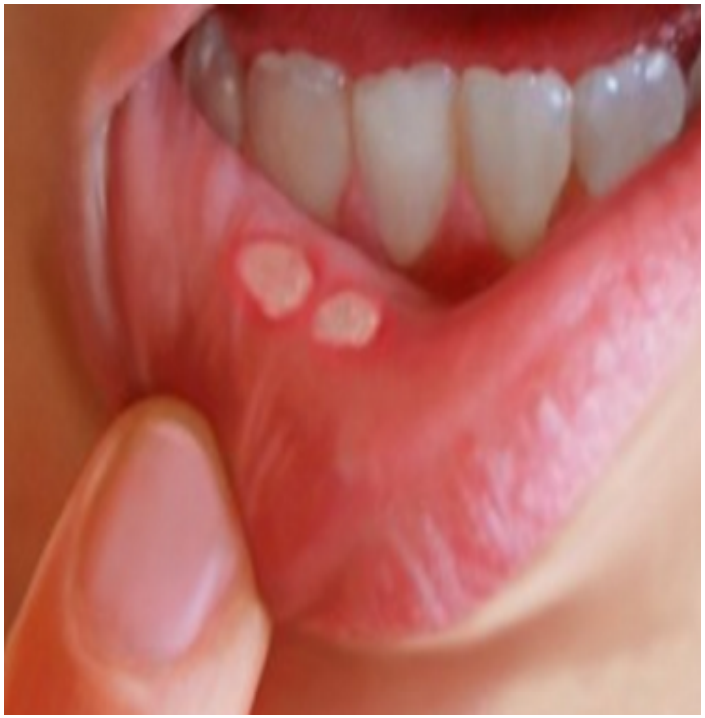
General features

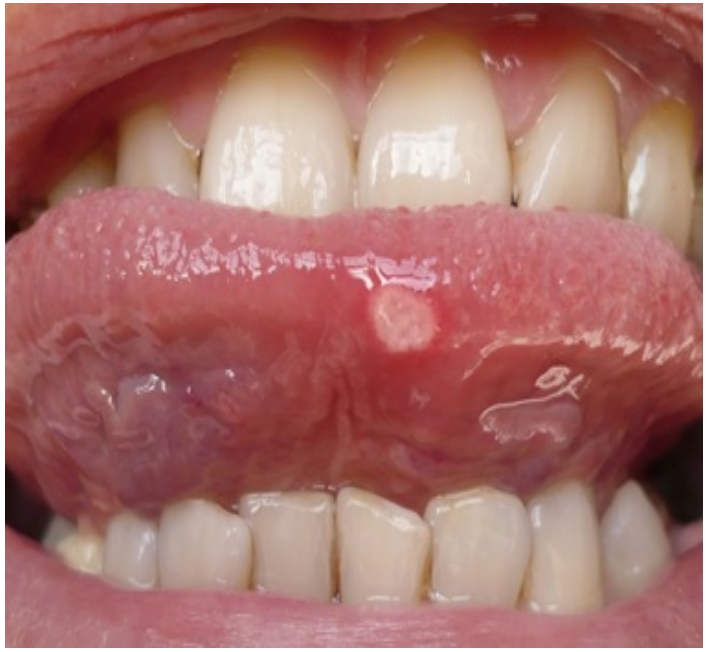
- Prodromal burning sensation, followed by erythema, papule formation and ulceration
- Confined to lining/non keratinized mucosa
- Round, symmetrical ulcers
- Fibrinous ulcer floor, red halo around the ulcers

Minor Aphthous ulcers (Mikulicz Ulcers)

- Most common – 80%
- Small ulcers – 1- 10 in number
- less than 1 cm in diameter
- Heal without scarring in 10-14 days

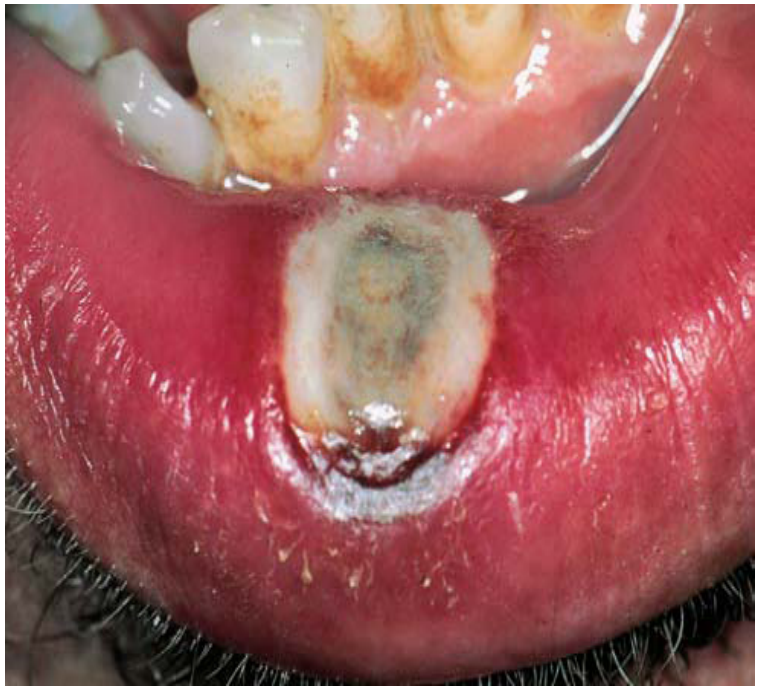


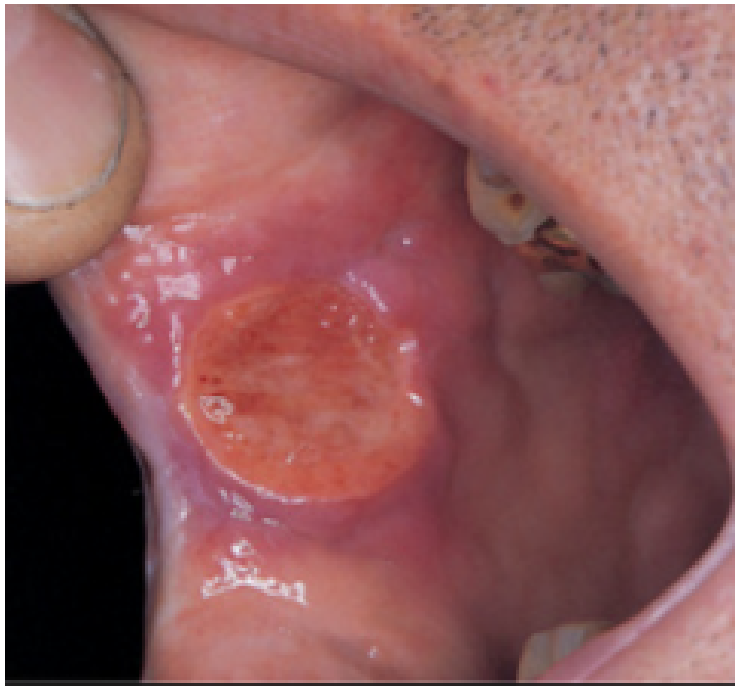


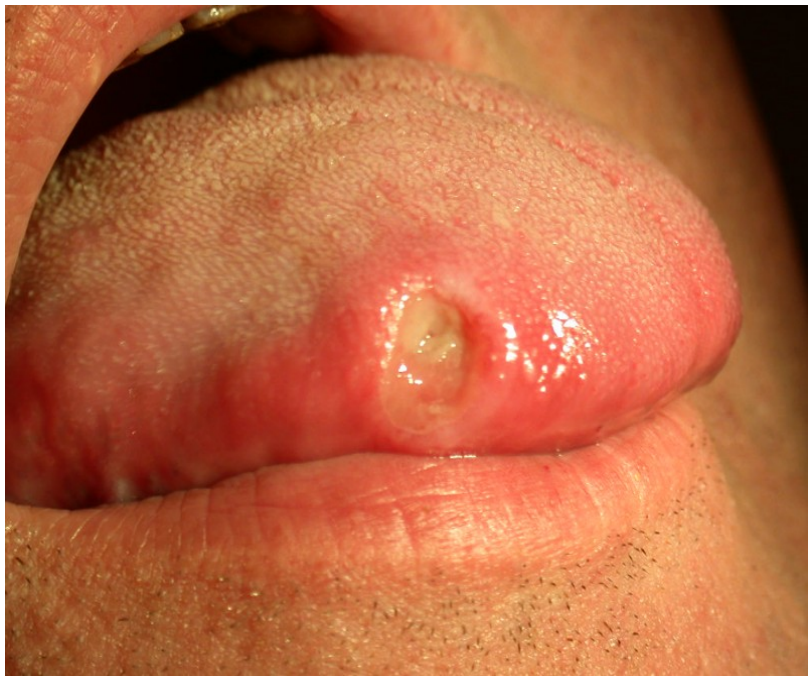


Major Aphthous ulcers (Periadenitis mucosa necrotica recurrens, Sutton disease)

- large crateriform ulcers – 1-3 in number
- More than 1 cm in diameter
- Very painful
- Persist for weeks to months
- Very painful, disabling, difficulty in mastication and speech
- Heal with scarring - decreased mobility of the tongue and uvula

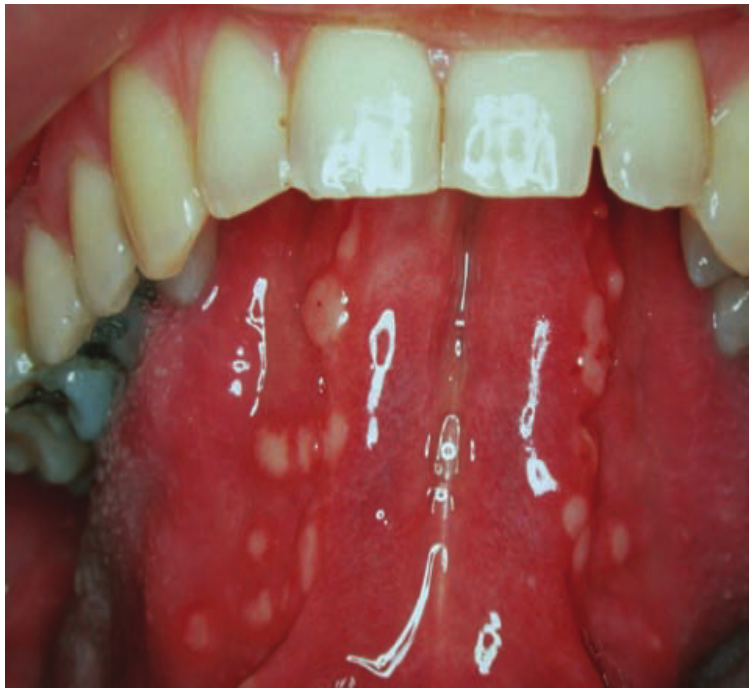


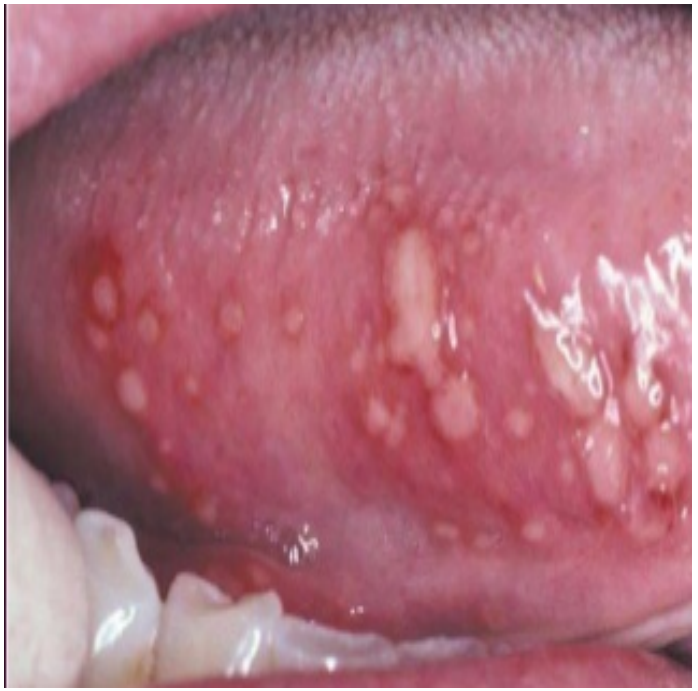


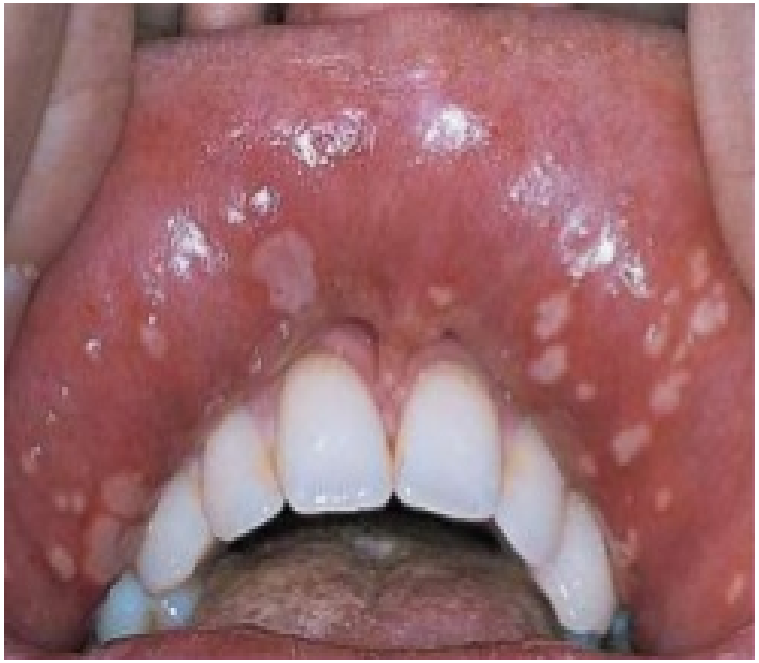


Herpetiform ulcers (Cooke's ulcers)

- Prevalent in adults
- Crops of numerous(dozens) ulcers – small, punctate (pin- point)
- Cover large portions of the oral mucosa
- Heal without scarring







Severe minor ulcers

- No clear distinction between Minor and Major ulcers
- Severe discomfort from continual episodes of multiple ulcers – less than 1 cm in diameter

Differential diagnosis

- Viral stomatitis
- Erythema multiforme
- Pemphigus, pemphigoid
- Drug reactions
- Behcet disease

In case of Major type,

- Malignant ulcer
- Traumatic ulcer

- Behcet's syndrome – triad of oral ulcers, genital ulcers and eye involvement
- PFAPA syndrome – Periodic Fever, Apthosis, Pharyngitis and Adenitis
- MAGIC syndrome – Mouth And Genital Ulcers with inflamed Cartilage
- Sweet's syndrome – Acute febrile neutrophil dermatosis

Diagnosis/Investigations

- History- blood dyscrasias, HIV, Lupus, Crohns disease, associated skin, eye, genital or rectal lesions
- Hematology-iron, folate, Vit B12 and ferritin
- HIV test
- Biopsy- rarely, shows superficial ulcer covered by a fibrinous exudate

Management

Mild cases – protective emollient – orabase,

- Topical anesthetics – lignocaine
- Topical analgesics – diclofenac

Severe cases – protective emollient- orabase

- High potency topical steroid- betamethasone, fluocinonide, clobetasol, triamcinolone
- Intralesional steroids
- Topical Amlexanox paste

Other drugs

- Dapsone – hemolytic anemia
- Thalidomide - teratogenic
- Colchicine
- Pentoxifylline

Newer therapies

- Low level laser therapy (photobiomodulation)

Summary

- Ulcer is a lesion of the skin or of a mucous membrane, that is accompanied by formation of pus and necrosis of surrounding tissue, usually resulting from inflammation or ischemia.

- Ulcers may have a local aetiology or a more serious systemic aetiology.

- Ulcers can be acute, chronic or recurrent; may present as primary or secondary lesion; single or multiple; extremely painful or painless.

- Primarily, it is important to provide symptomatic relief to the patient followed by prompt treatment of the ulcer itself.

Conclusion

- Many patients in our daily practice present to us with a chief complaint of oral ulcers which may or may not be associated with pain.
- Sometimes, it could be an incidental finding and even life threatening.
- It is mandatory for dentists to have a thorough scientific knowledge so as to identify and differentiate ulcers affecting the oral and perioral structures.
- Prompt diagnosis, necessary treatment and appropriate referrals are crucial in the handling of any patient presenting with oral ulcers.

Thank you for reading…

Group discussion…