Flipped classroom teaching – Module 1

Oral Ulcerative Lesions

Classification

and

Recurrent aphthous stomatitis

21.8.2017

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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

- 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

**Fig. 4.14.** Diagrammatic representation of various parts of an ulcer. See the text.
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
o Nutritional deficiencies:
  • Vitamin B complex
  • Iron

o Hematologic disorders:
  • Leukemia
  • Agranulocytosis
  • Neutropenia/ cyclic
- Neoplastic ulcers:
  - Squamous cell carcinoma
  - Adenoid cystic/ adenocarcinoma
  - Mucoepidermoid carcinoma
  - Melanoma
  - Lymphoma
o Preneoplastic ulcers:
  • Lichen planus
  • Oral submucous fibrosis
  • Discoid lupus erythematosus

o 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
- Heightened 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
- Intraleisional 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...