

# **Necrotising ulcerative gingivitis**

NUG, Vincent's stomatitis

- A subclassification of necrotising periodontal disease
- Peak incidence is 20-25 yrs
- Presents as an acute infection of the gingiva
- If infection progressed deeper, it is subclassified as (NUP)
- NUP may presents as punched-out papillae, red marginal

gingiva, loss of interdental papillae , pseudomembranous formation , painful , and halitosis

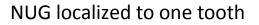
Aetiology

- Anaerobes (Prevotella intermedia, fusobacterium, spirochetes), needs specific environment.
- Poor oral hygiene, poor nutrition, smoking, stress, lifestyle
- May complicate periodontitis
- Drugs (immunosuppresants) and immunosupressed patient .

Page 1 | 10

loss of interdental papillae linear ulceration spontaneous bleeding poor oral hygiene







Title – Sheet#

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# Diagnosis

- By smear and gram stain (unaerobes)
- Response to treatment

# Treatment

- Metronidazole (flagyl) or penicillin-V for 5 days
- Chlorhexidine MW (Best antibiotic MW), vitamin C, oral analgesics
- Removal of supragingival and subgingival deposits (scaling)
- Gingivoplasty to treat the loss of interdental papillae
- Correct nutritional deficiency, DM, anaemia

# **Tuberculosis**

Tubercle bacillus

- A chronic infectious granulomatous disease
- Affects any part of the body including the mouth
- Increase in TB may be due to <u>HIV</u>, poverty, resistant to drugs
- Oral lesions are rare may be <u>1ry or 2ry</u>
- 1ry- uncommon, seen in younger patients and present as single

# painless oral ulcer with lympadenopathy

• 2ry common, seen in middle aged and elderly with pulmonary

disease, and present as single painful ulcer of dorsum and lateral surface tongue

(DDx malignancy of lateral surface of the tongue which is painless not painful, such as SCC)

Clinically- cough, haemoptysis, fever, weight loss, malaise

# Aetiology

By Mycobacterium tuberculosis (MTB)

# Diagnosis

- Cultures of biopsy, and sputum smear, reveal acid fast bacilli
- Histopathologic examination of biopsy

Page 2 | 10

Title – Sheet#

Chest x-ray

### Treatment

Long term Antibiotics for at least 6-9 months:

# **Syphilis**

It is a sexually transmitted infection of 3 distinct stages:

1ry phase- highly contagious; tip of the tongue is second to lip as site

for chancre which is painless ulcer, hard and punched out .



Associated cervical glands are hard and non-tender( lymphadenopathy ) ; lasts one week

2ry phase- highly contagious; develops 4-10 weeks after chancre

and may last up to 2 yrs. Mucous patches is seen on sides and tip of

Tongue that later coalesce to form snail track ulcers ,skin rash



3<sup>rd</sup> phase- less contagious than 2ry, but can be fatal. Presents as

gummas known as granulomas on hard palate or dorsum tongue.

ALL STORES	gummas
	DDx : SCC
	Page3   10

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In addition to a syphilitic leukoplakia of dorsum tongue known as syphilitic

glossitis which is premalignant

### Aetiology

- Caused by Treponema palladium
- May transmit to faetus via placenta after 16 weeks of pregnancy

### Diagnosis

- Early cases: scrape the chancre and dark-field microscopy
- Advanced cases: blood test
- If positive then refer to venereologist

# Treatment

Long term Parenteral penicillin-G for all stages

# **Actinomycosis**



- A rare chronic bacterial infection
- Occurs in persons aged 30-60 yrs
- Affects face and neck, more mandible
- A favourable condition is required such as periodontal pockets,

fracture sites, and mainly post extraction (surgical removal for wisdom)

Symptoms occur after trauma, oral surgery, dental abscess or

radiation therapy leading to weight loss, pain, and fever

 Once in tissue, it forms a painful abscess that breaks through the skin surface to produce multiple draining sinuses

Page4 | 10

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#### Aetiology

- Caused by anaerobic bacteria called Actinomyces israelii
- This organism found commonly in nose and throat

These organisms are found normally in the nose and throat but once they find the appropriate environment for thier growth they turn to be pathological.

Slide#132 : still the sinus is not opened.

The easiest way for the sinus to open is through the skin. It's preferable to be cured before the sinus open beaause if not, it will leave a scar on the face.

#### \* Diagnosis: \*

-Smear and culture of tissue or fluid shows sulfur granules

-Positive Kveim test confirms the diagnosis (Kveim test: +ve in sarcoidosis.)

#### \* Treatment: \*

- Penicillin G (2-6w) "parentral" followed by oral penicillin (6-12m)
- If allergic to penicillin then doxycycline
- Surgical drainage of abscesses or radical excision of sinus

The previous was about BACTERIAL INFECTIONS. Now we will talk about FUNGAL INFECTIONS.

#### Acute pseudomembraneous candidiasis (Moniliasis or thrush)

"The doctor doesn't like the term (thrush) in oral exams, so try to use the term (Acute pseudomembranous candidiasis)"

Most people affected:

-infants, transmitted to them be thier mothers.

-HIV patients and Immunocompromised patients.

Page5 | 10

• Soft, creamy white patches, most frequently affect Dorsum of the tongue, palate, and buccal mucosa.

• Angular cheilitis is often found.

Thrush is usually widely spread in the oral cavity and can be wiped off leaving an erythematous base, while the leukoplakia is confined.

When immunocompromised patients had fungal infections, distal spread will occur which means it will continue spreading from the oral cavity to other parts of the body.

#### \* Aetiology: \*

- Candida albicans (the cause of the most common oral fungal infections)

- Precipitating factors:
- 1) Local > immunocompromise the oral cavity, such as :

-long term intake of antibiotics and high dose intake of antibiotics

-antibiotic mouthwashes

-smoking

- -chronic xerostomia
- 2)Systemic > many things such as:
- -the drugs that make immunosuppresion
- -Radiation and chemotherapy

-malnutrition

To differentiate it from the other white lesions, usually the thrush is not found in one place in the mouth, for example you will find it in the palate and tongue together. **The most important thing that it can be removed so it's easy to be diagnosed.** Also remember that it's always combined with Angular cheilitis because the angles of the mouth get infected.

#### \* Diagnosis: \*

By smear and culture to recognize Candida Albicans.

#### \* Treatment: \*

-Remove the cause and treat it topically by topical antifungal such as nystatin suspension or lozenges.

Page 6 | 10

Title - Sheet#

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-If the patient is immunocompromised then treat it by systemic antifungal such as fluconazole.

-For the Angular cheilitis: Miconazole oral gell, but if the angles of the mouth was severely inflamed give corticosteroids (gell) with the Miconazole.

## Erythematous candidiasis

Two types:

1) Acute erythematous candidiasis :

-caused by the large or prolonged term intake of antibiotics.

-severe burning sensation in the mouth, it's a sore ...

-red patches

-in old days it was called" acute atrophic" but there's no atrophy so it changed into "antibiotic sore mouth" but now it's changed into "acute erythematous candidiasis" ..

2) Chronic erythematous candidiasis :

-seen in patients wearing ill fitting dentures for prolonged duration, or through night

-Not a sore at all, not painful

-in old days it was called "Denture stomatitis" but it's not an inflammatory disease

- Erythema is limited to area beneath upper denture

-Angular cheilitis or stomatitis may be present

#### \* Aetiology: \*

•Caused by Candida albicans

•PP- poor oral and denture hygiene, xerostomia, DM, carbohydrate-rich diets, iron or vitamin B12 deficiency, steriods, HIV infection, smokers

# Median rhomboid glossitis (Central papillary atrophy)

A red depapillated rhomboidal area in the centre of tongue dorsum, now believed to be associated with erythematous candidiasis (the term "Median rhomboid glossitis " is old, now it's considered as erythematous candidiasis)

\* Diagnosis: \* smear and culture

- \* Treatment: \*
- Topical antifungal therapy
- Miconazole oral gel for fitting surface and angular cheilitis

Title - Sheet#

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• Soak dentures in 1% sodium hypochlorite, or if metallic in 10% cetrimide or drops of detol

• You should give a topical antifungal and do relining for the denture or change it with a new one because the hyfae of the candida enter through the pores of the fitting surface and treat the Angular cheilitis.

### Acquired immunodeficiency syndrome AIDS

-The pathogen is HIV

-In the past, the patient could live for up to 7 years but nowadays the medications can prolong the life span of the patient up to 18 years but still there's no cure.

-AIDS started with homosexual, and now it happens with heterosexual, so today 75% is transmitted by heterosexual

• Pre-AIDS symptoms mostly include chills during night, malaise, fevers, sweats, swollen lymph nodes (generalized lymphadenopathy), weakness, loss of weight, persistant oral fungal infection

Full blown AIDS is characterised by opportunistic infections such as PCP, KS, Burkett-type lymphoma, unresolved candidal infection, GIT infections, severe glomerulonephritis, renal damage

NOTE: kaposi sarcoma, Hairy leukoplakia and persistant candidal infection usually happen directly before the Full blown AIDS.

Pre-AIDS > carrier ... Full blown AIDS > infectious

• Some few patients re lucky, they develop AIDS very slowly or never at all, and called **nonprogressors** due to genetic factors.

# \* Aetiology: \*

- A retrovirus known as HIV
- Transmitted by direct contact of bodily fluid containing HIV, and mostly by sexual transmitting

slide#164: patient is nearly to reach Full blown AIDS, it' severe fungal infection

**slide#169:** corregated fissured white lesion, could be uni or bilateral and is called Hairy leukoplakia. EBV is responsible of it.

NOTE: slide#172: AIDS is associated with linear gingivitis.

- \* Diagnosis: \*
- Smear and culture swab of candida

Page8 | 10

Title – Sheet#

- Viral culture swab of dorsum tongue
- Tongue biopsy in hairy leukoplakia
- Blood tests.
- Barium swallow, bronchoscopy, and chest

#### \* Treatment: \*

-HAART (highly active antiretroviral therapy) reduces mortality and morbidity, this one which can prolong the life span of the patient as we said before

-Treat opportunistic infections

-Prevention is the key, Prevention is the most important thing for the AIDS



Page9 | 10