

Connective tissue inflammations in the maxillofacial region Specific inflammations

Outline

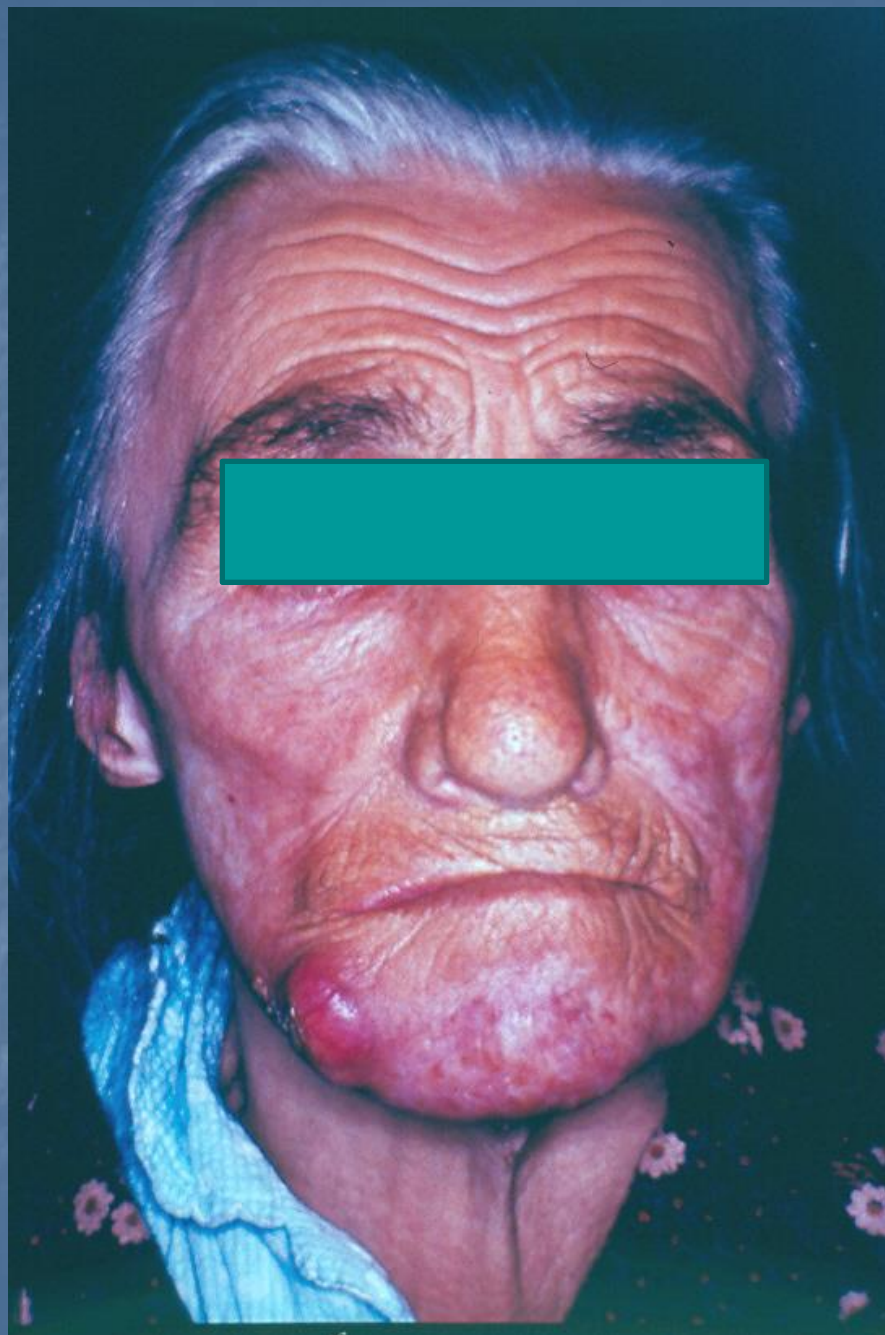
- Phlegmone (origin, diagnosis)
- Phlegmone treatment
- Phlegmone differential diagnosis
- Specific inflammations

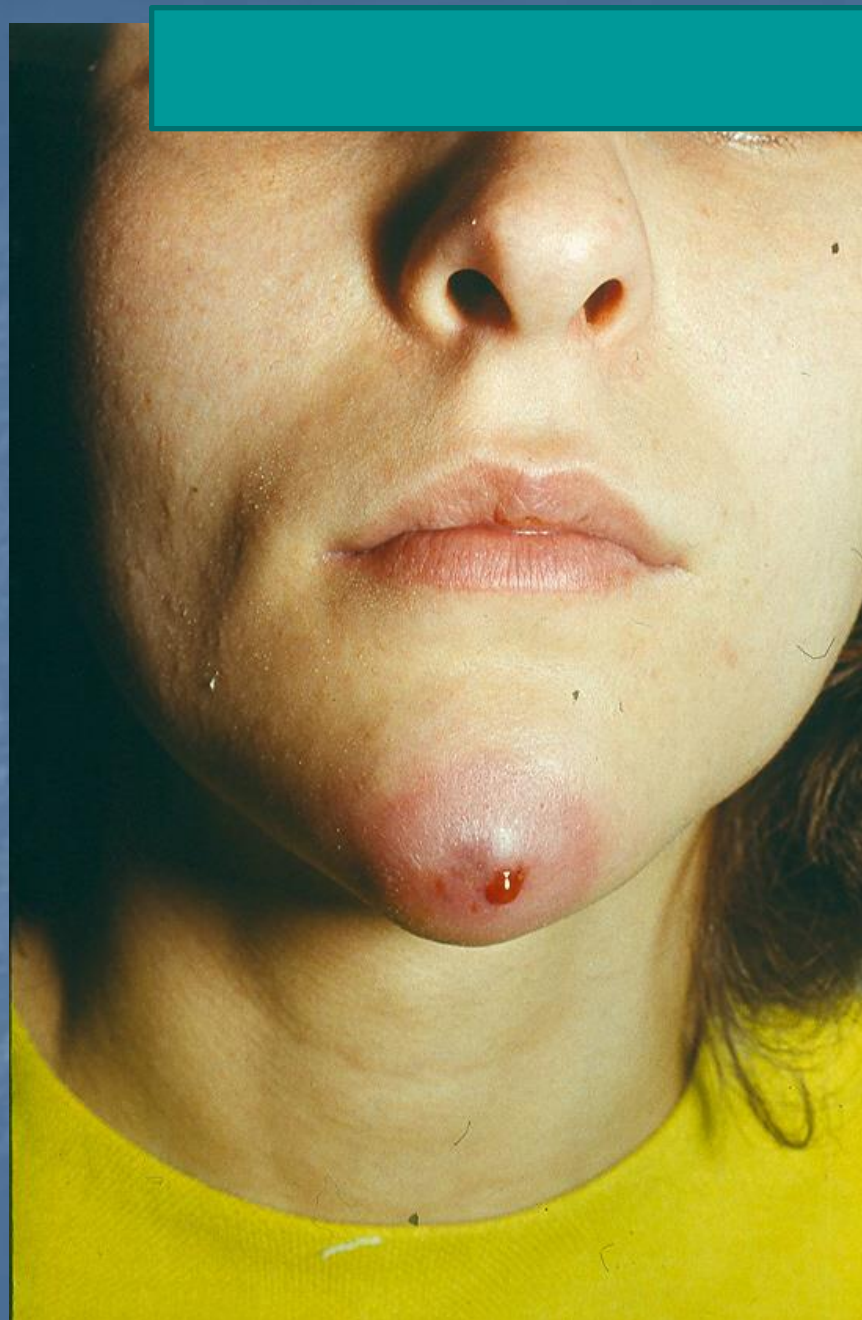
Abscess-cellulitis differential diagnosis

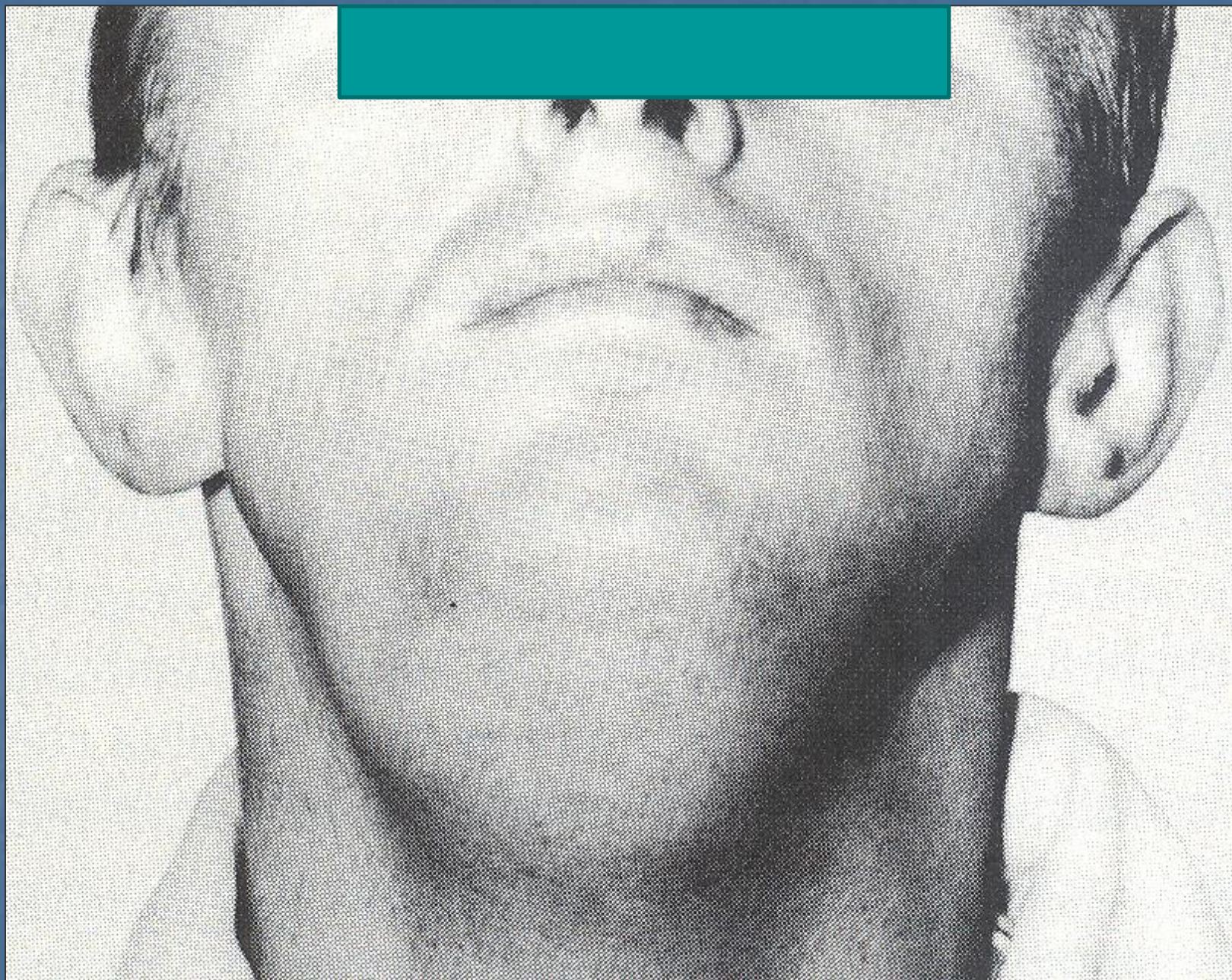
	Abscess	Cellulitis
General condition	Good or week	Bad
Temperature	Moderate fever	Septic fever: Subfebrile, than high fever
Pulse	Fast, full	Easily obliterated
Shaking chill	Rare	Frequent
Origin	Caries eff. dis., dentitio diff., fracture of jaws, furuncle	Caries eff. Disease, dentitio diff., furuncle
Localisation	Vestibulum, floor of the mouth, bucca, ...	Floor of the mouth, parotid or temporal region
Extension	Circumscribed	Diffuse, no border
Pressure sensitivity	On the place of absc	Diffuse
Oedema	Marked, but circumscrib.	Diffuse, no sharp border

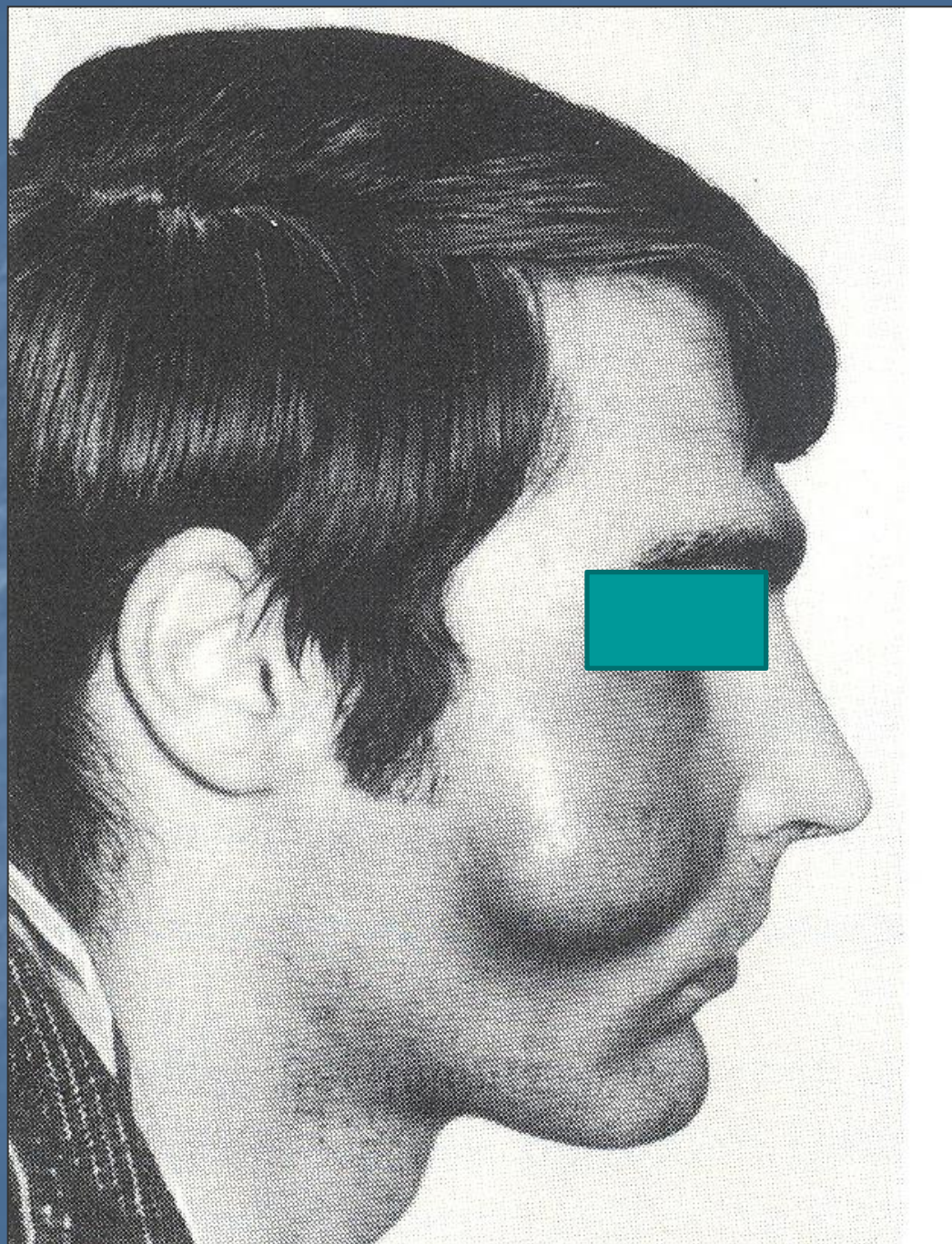
Abscess-cellulitis differential diagnosis

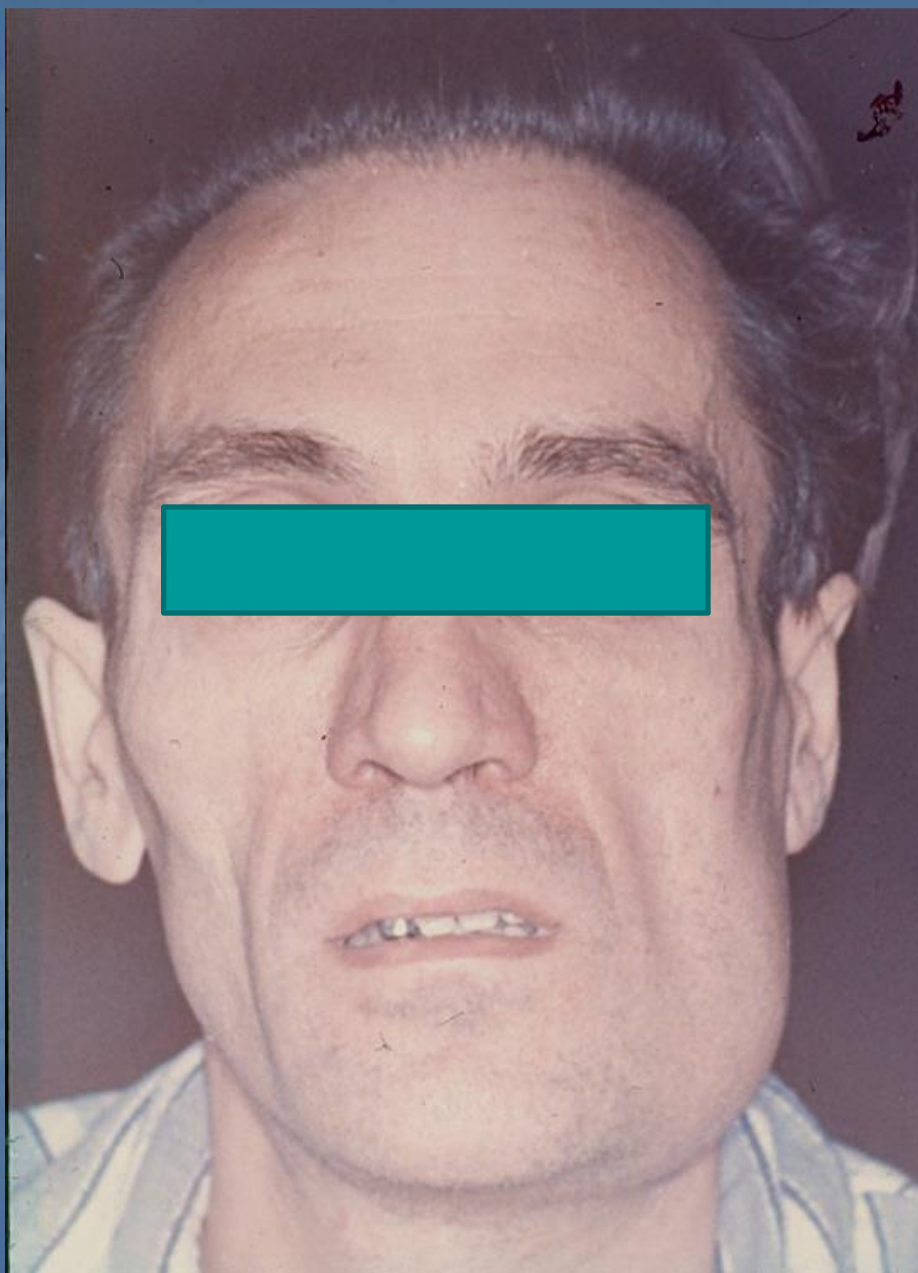
	Abscess	cellulitis
Lymphnodes	Enlarged, pressure sensitive	No touchable often
Pain	Med strong or strong	Med strong or strong
Fluctuation	Exist	Usually no
Incision finding	Thick, yellow pus	Thin greenish-dirty serous
Inflammation	Circumscribed	Seroupurulent, infiltrative, necrotic
Electrolytes	Normal	Pathological
Prognosis	Favourable	Doubtful or bad













Phlegmone

- Definition: inflammation of the connective tissue without the tendency of being an abscess

The origin of inflammations

- Dental origin: chr. periapical lesions, postoperative period inflammations, periodontopathies, cysts, non erupted teeth
- Other reasons: lymphadenitis, neck cysts, injuries of the skin or the mucosa, furuncul, pyoderma

Symptomes

- Swelling /fluctuation?/
- Angry red coloured skin/mucosa
- Fever /in case of abscess, „septic“ kind of fever/
- Pain
- Mouth closure, swallowing problems, speach problems, breathing problems
- Bad general condition

Causative agents

- Monoinfections, in most cases:
Staphylo-, Streptococcus
- Sometimes: Gram negative:
Enterobacter, Pseudomonas aeruginosa,
E. coli, other anaerobs
- In case of severe infections, specimen for
bacteriology, antibiogramm is absolutely
neccessary

Diagnostic possibilities

- Anamnesis
- Clinical examination
- Punction (purulent?)
- X-rays
- Ultrasound!
- (CT, MR)

The track of the inflammation

- **Phl. pterygocranialis**
 - On the upper jaw: From the molar region in retrotuberal direction to the scull base
- **Phl. temporofacialis**
 - On the upper jaw: From the molar region under the m. temporalis
- **Phl. parapharyngealis**
 - m. pterygoideus medialis and the wall of the pharynx (to the mediastinal direction)

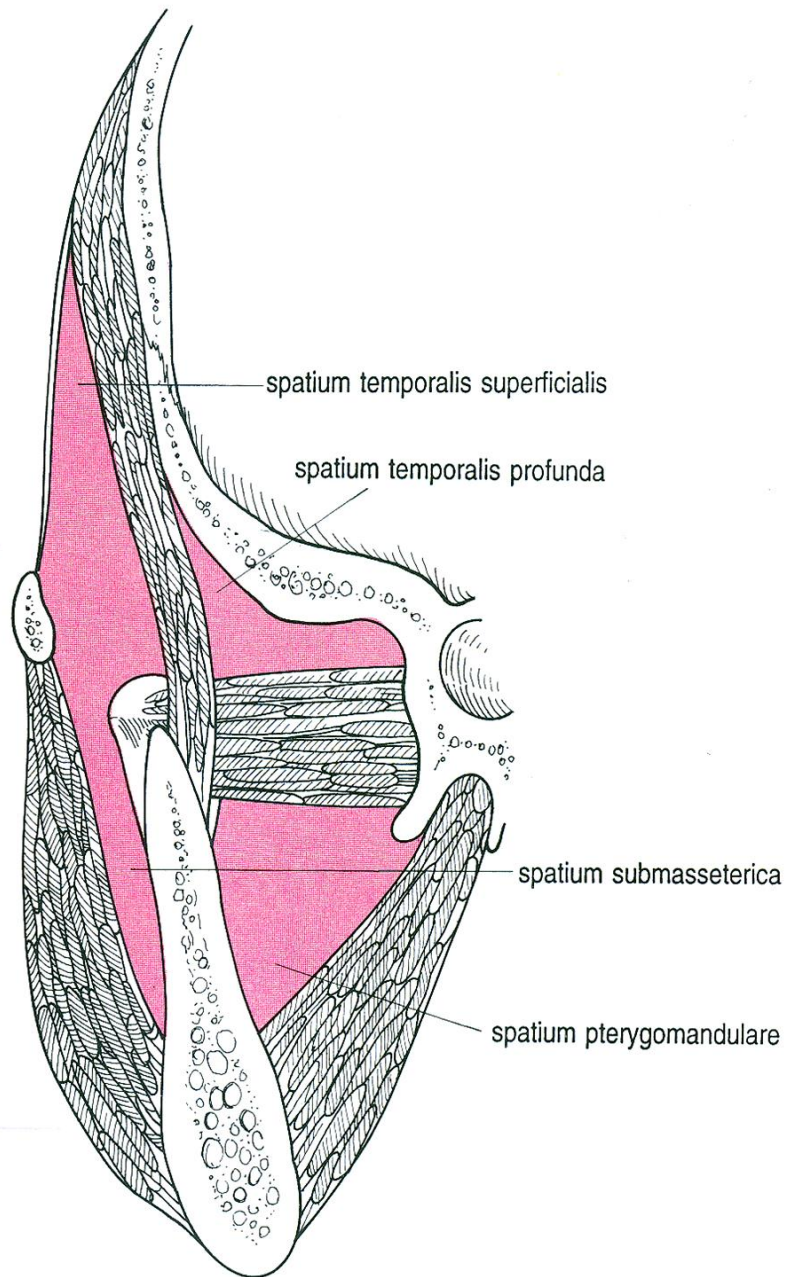
Progrediation directions of inflammation

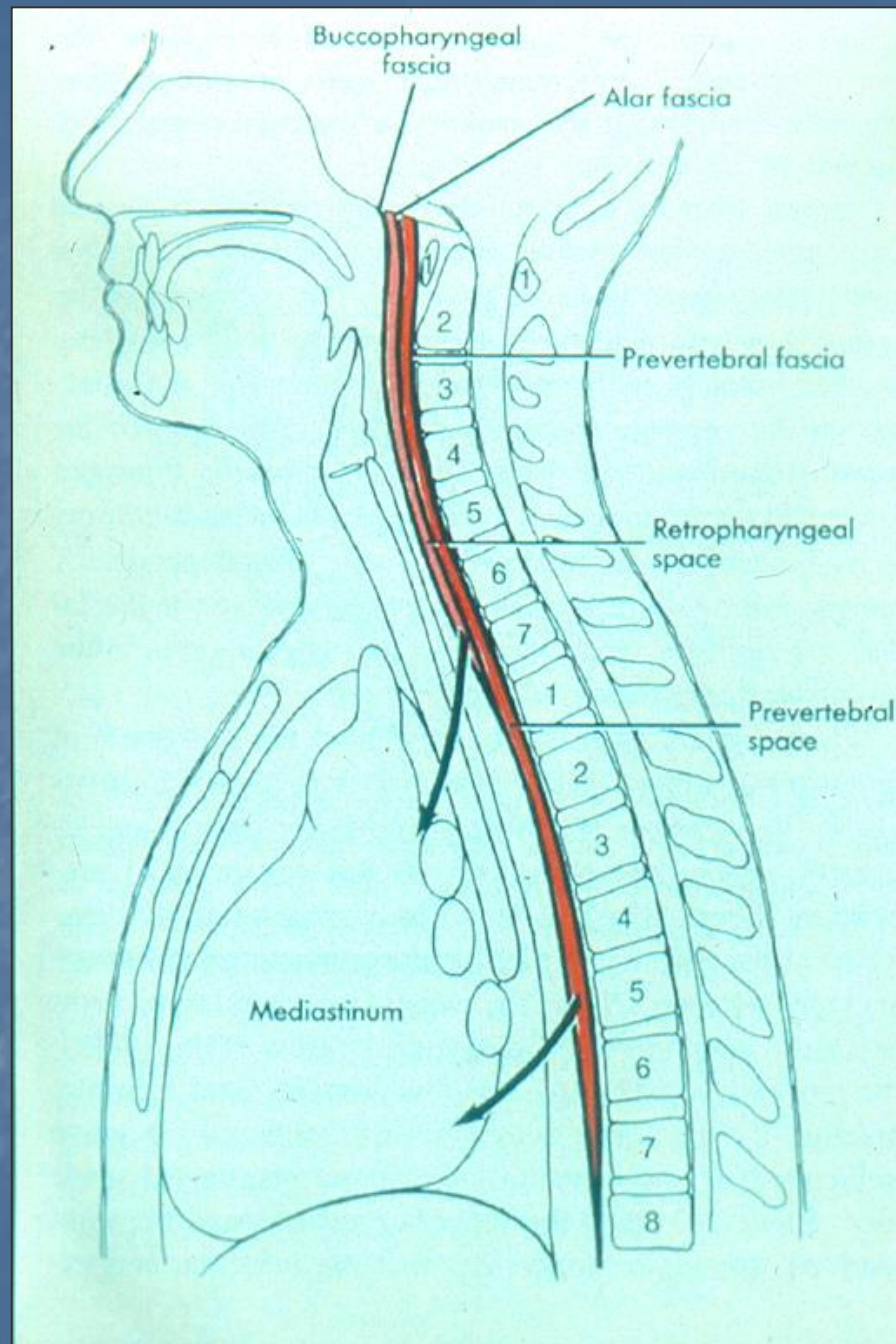
- **Teeth of the lower jaw:**
 - **phl. pterygomandibularis**
 - **phl. submandibularis**
 - **phl. submental**
 - **phl. sublingual**
 - **phl. perimandibularis**

Connective tissue spaces I.

Spaces of the masticatory muscles

- Sp. submasseterica
- Sp. pterygomandibulare
- Sp. temporalis superficialis
- Sp. temporalis profunda
- Fossa pterygopalatina
- Fossa infratemporalis





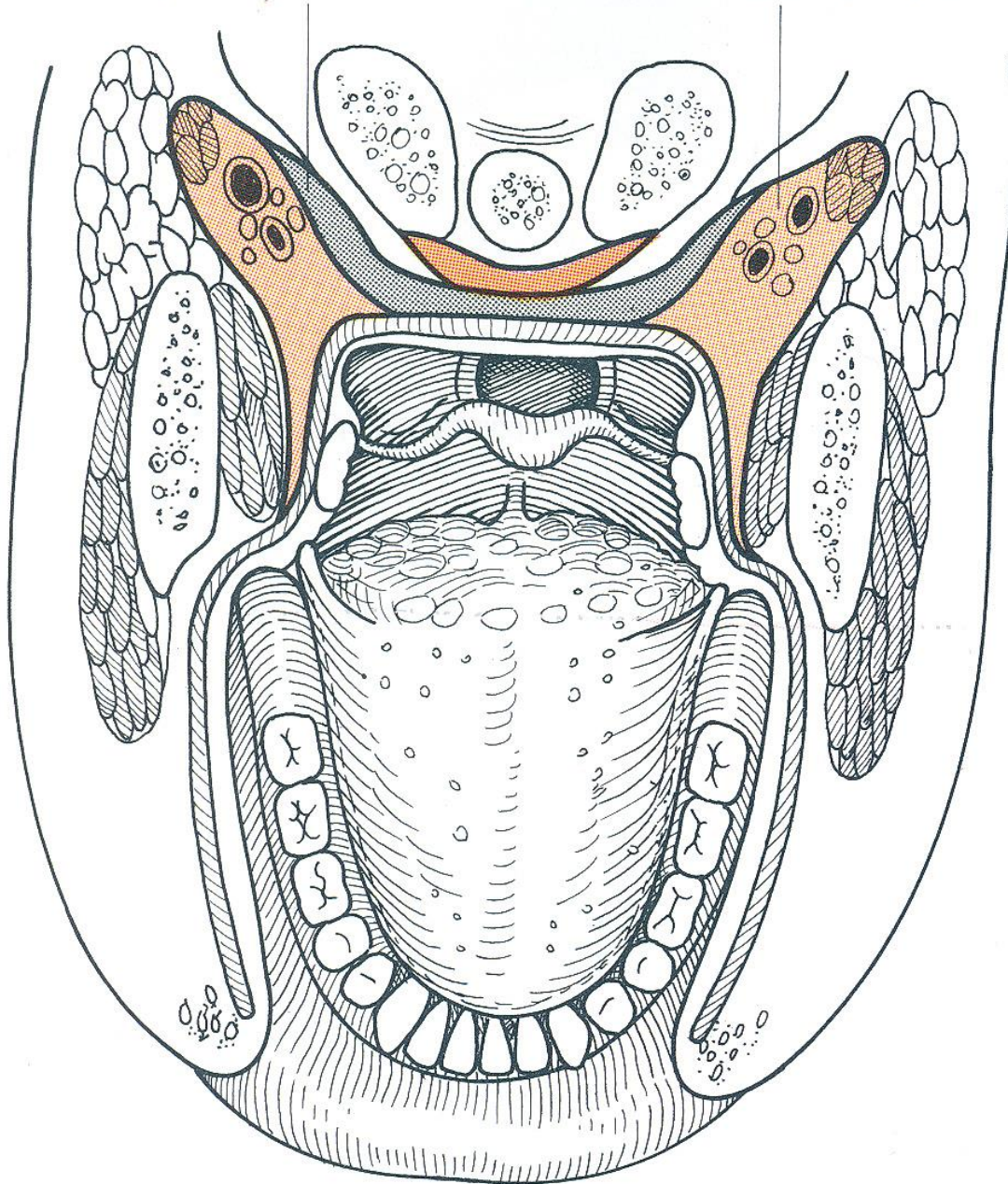
Connective tissue spaces II.

Other spreading directions

- Perimandibular cellulitis
- Spatium buccale
- Fossa retromandibularis
- Spatium para-, retropharyngeale
- Spatium praevertebrale

spatium praevertebrale

spatium retro- vagy parapharyngeale



Connective tissue spaces III.

Spaces of the floor of the mouth

- Spatium sublinguale
- Spatium submandibulare
- Angina Ludowici (bilateral cellulitis which involves both the sublingual and the submandibular spaces)

Treatment possibilities

- Conservative treatment (no pus gathering): antibiotics, steam dressing, painkillers, mouth gymnastics
- Surgical treatment (in case of pus gathering): intraoral/extraoral incision at the point of punctum maximum, drainage

Antibiotics

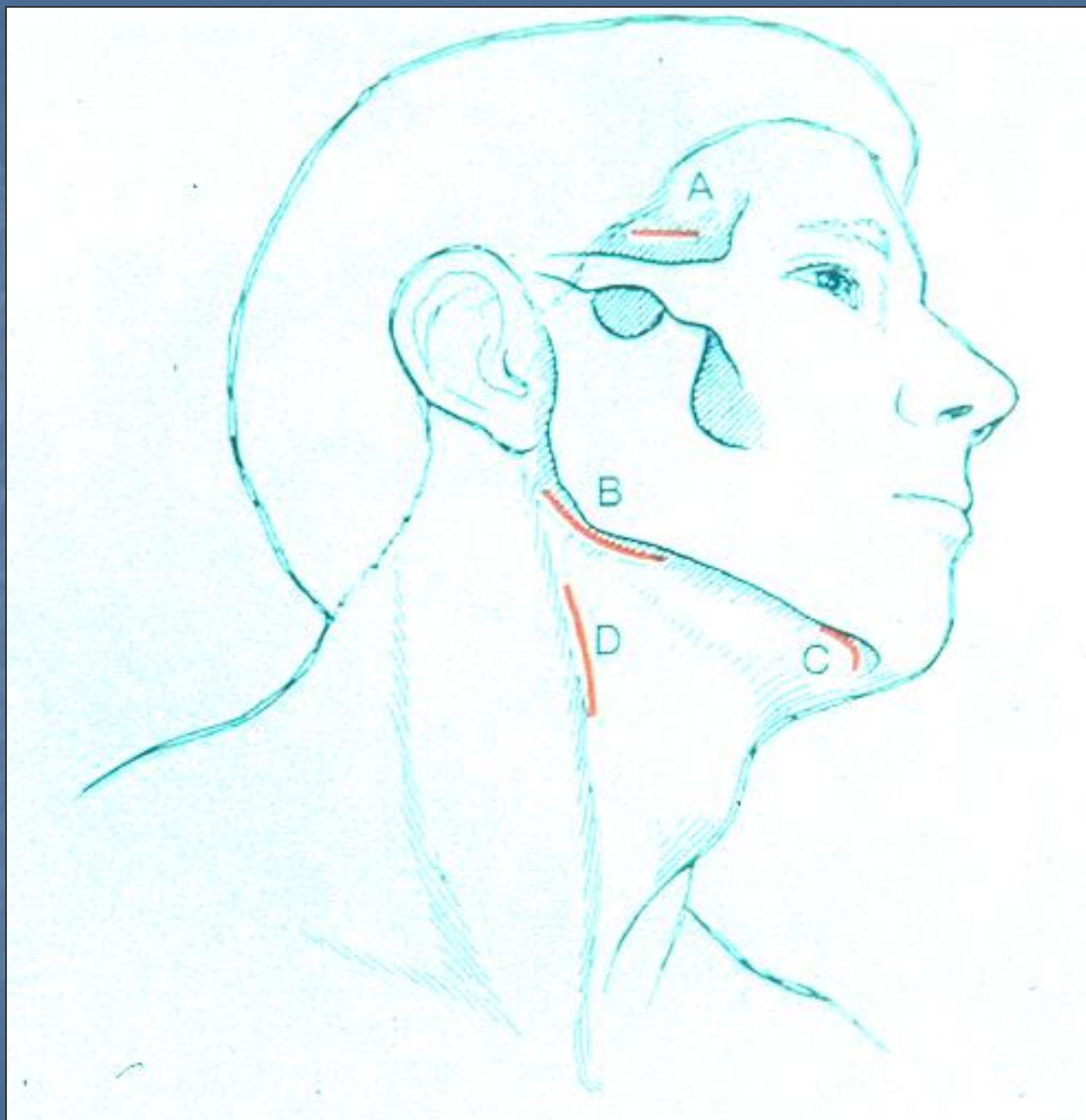
- Amoxycillin (Augmentin 375 mg, **625 mg**, Duo **1000 mg**)
- Clindamycin (Dalacin C 75 mg, 150 mg, **300 mg**)
- Cefalosporins (Cecloer 250 mg, **500 mg**)

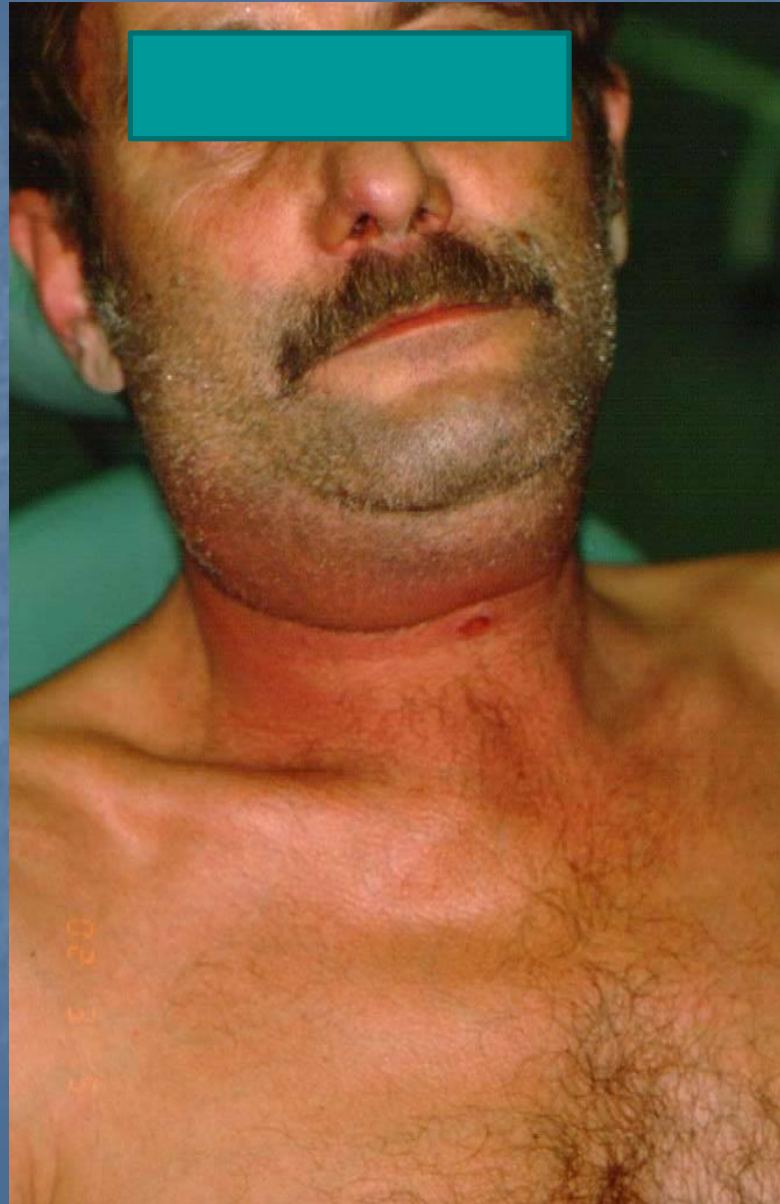
Steam dressing

- Dry cotton wool
- Nylon
- Wet cotton wool
- Dry gauze
- Fat cream

Aspects of incision

- Possibility of complete outflow of purulent discharge (bigger swell/deepest point)
- Saving nerv- and wessel branches
- Esthetic aspects (avoiding disadvantageous scars)









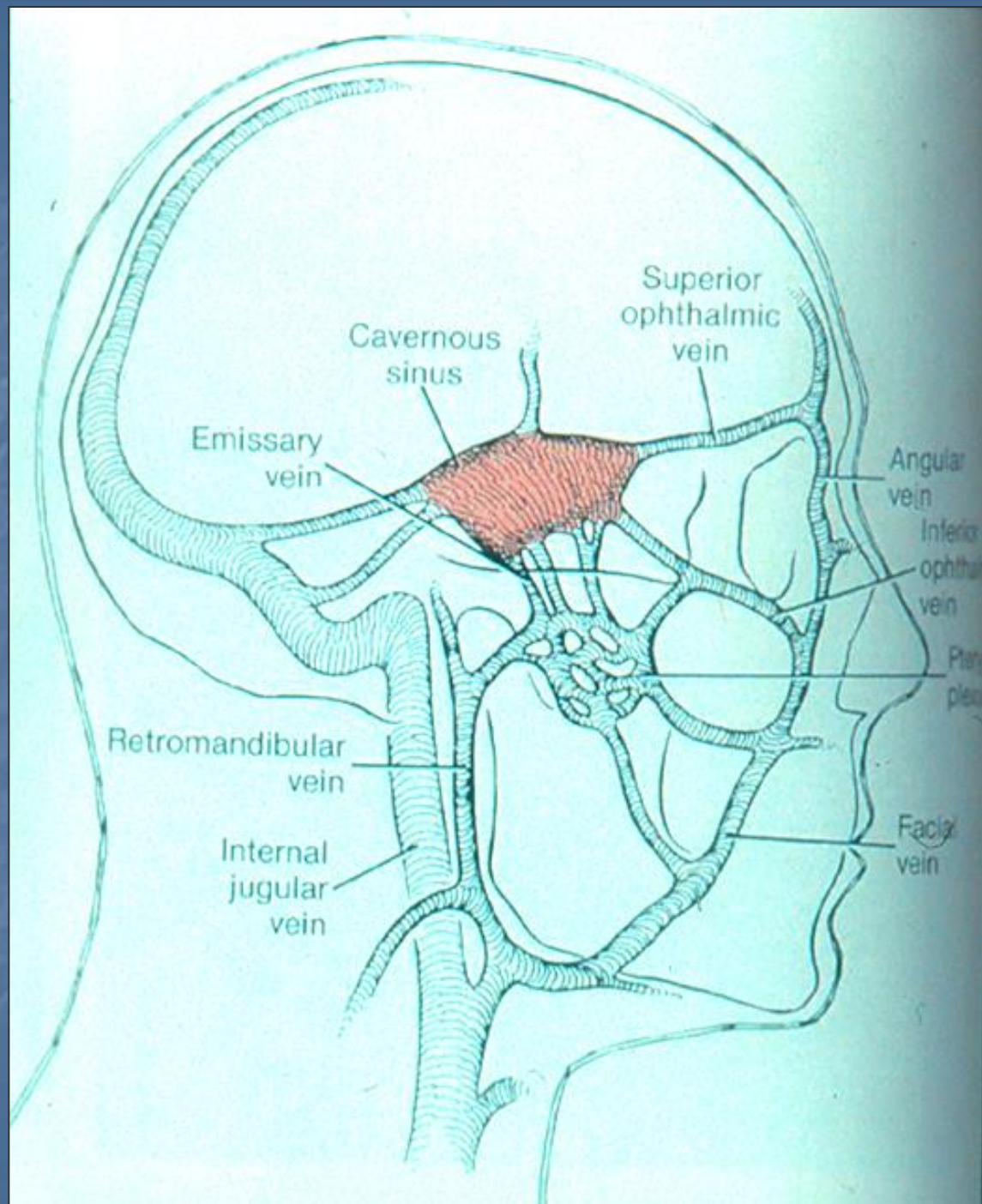




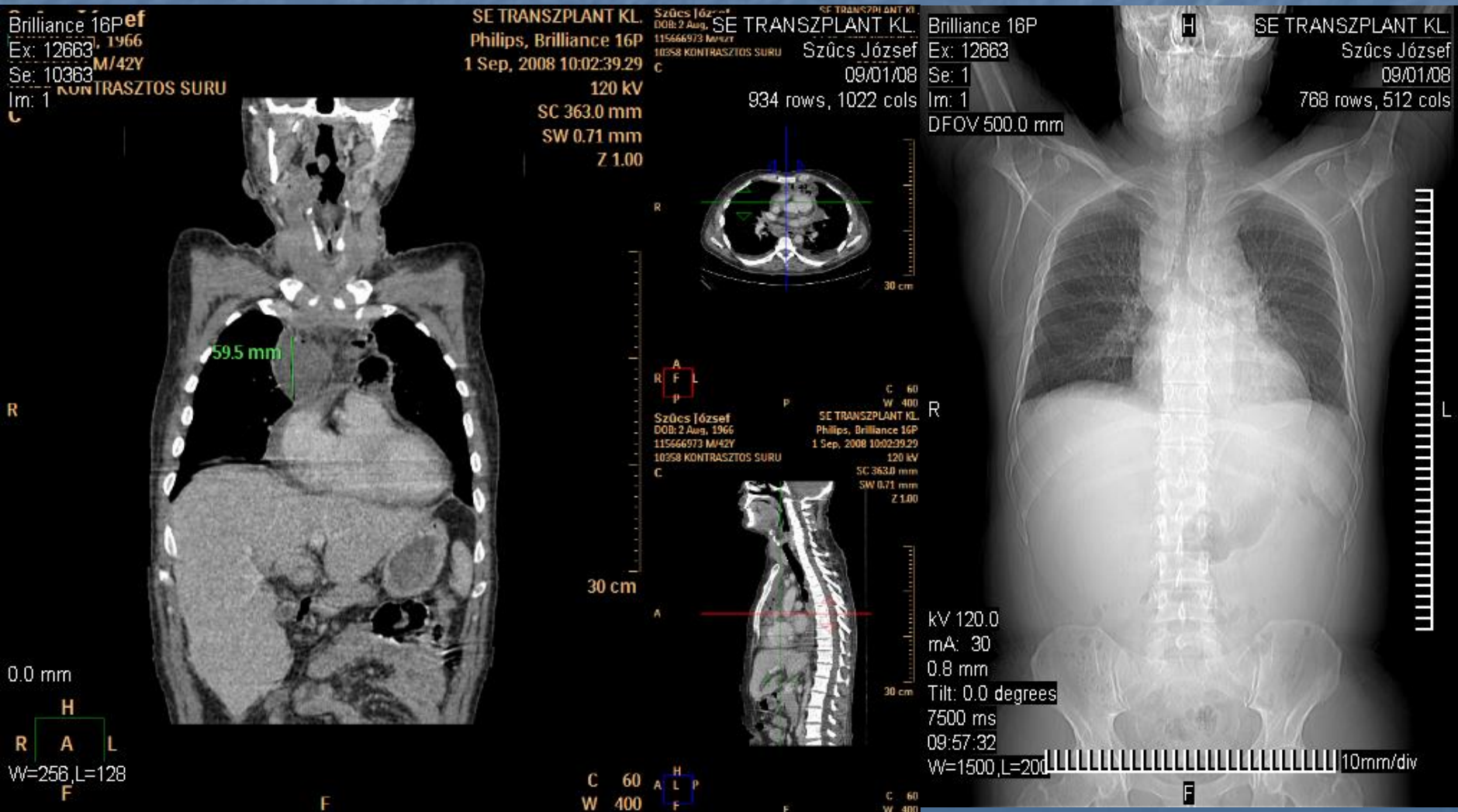


Side effects

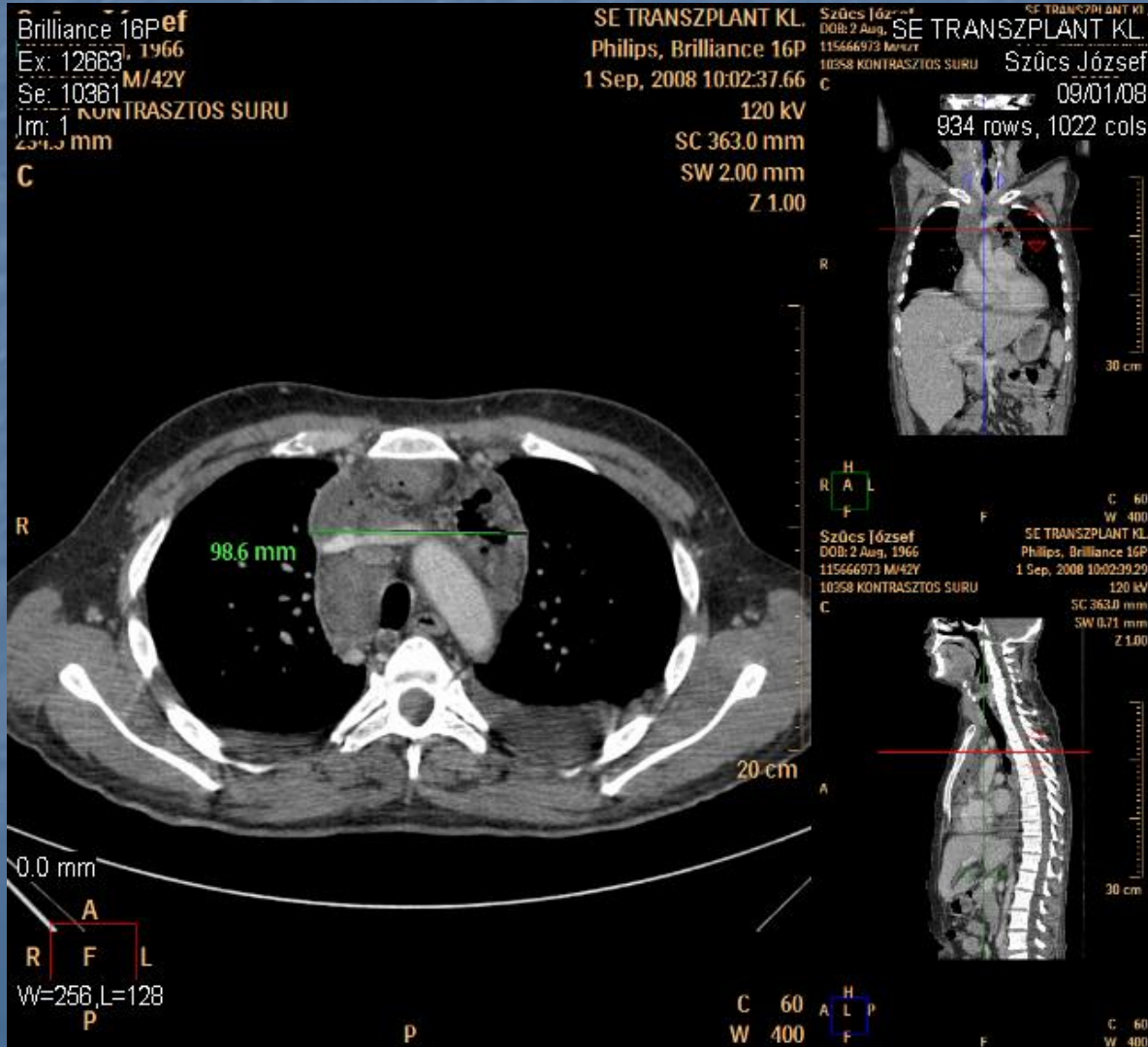
- Meningitis
- Mediastinitis



Mediastinitis



Mediastinitis



Differential diagnosis



Differential diagnosis



Differential diagnosis



Differential diagnosis



Specific inflammations

- The clinical process of the inflammation is specific for the pathogenic agent
- Typical process is uncommon in the age of antibiotics

Specific inflammations

- Actinomycosis
- Tuberkulosis
- Aids

Actinomyces

- Bakterium: Actinomyces Wolff-Israeli
- Localisation: cervicofacialis, pleuropulmonalis, abdominalis
- Appearance: red patch with border, multiple fistules
- Antibiotics (penicillin, streptomycin, INH)

Actinomyces

- Cervicofacial
- Abdominal
- Pulmonal

Actinomycosis

- Origin: dental, traumatogen
- Symptomes: similar to a chronic abscess: hard, livid swelling, often in the submandibular region, multiple fistules; tendency of recurrence; no fever (rarely yes); mild lockjaw
- Diagnosis: clinical process; yelow granules in pus and smear, biopsy; bacterial cultivation (anaerobe) is necessary

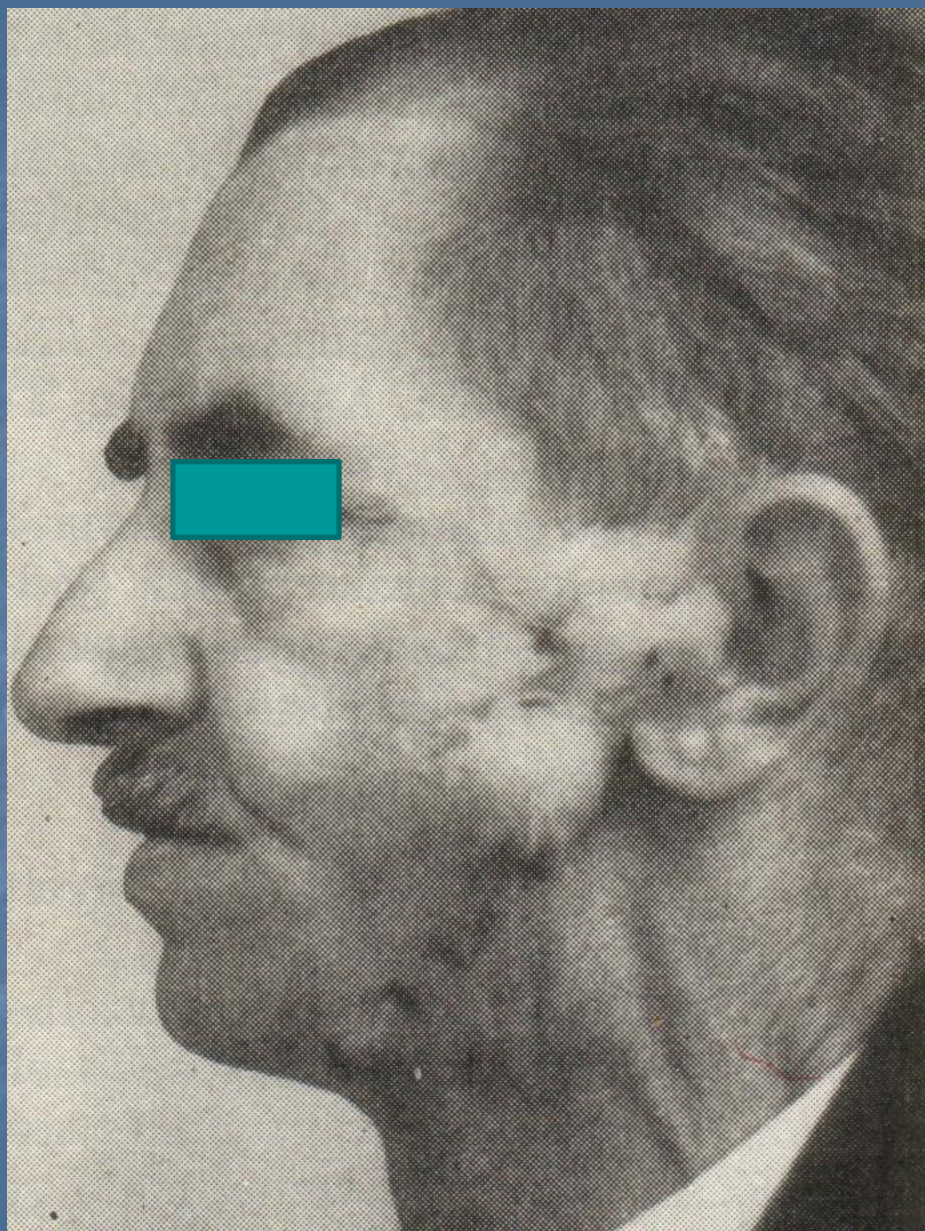
Actinomyces

Therapy: big dose antibiotic therapy (~ 4-8 weeks), surgical removal of the necrotic parts of the swelling









Tuberculosis

- Primer infection: in the lungs (usually)
rare in the oral cavity
- Oral tbc:
 - primer infection: erosion on the mucosa
 - lymphadenitis tuberculosa

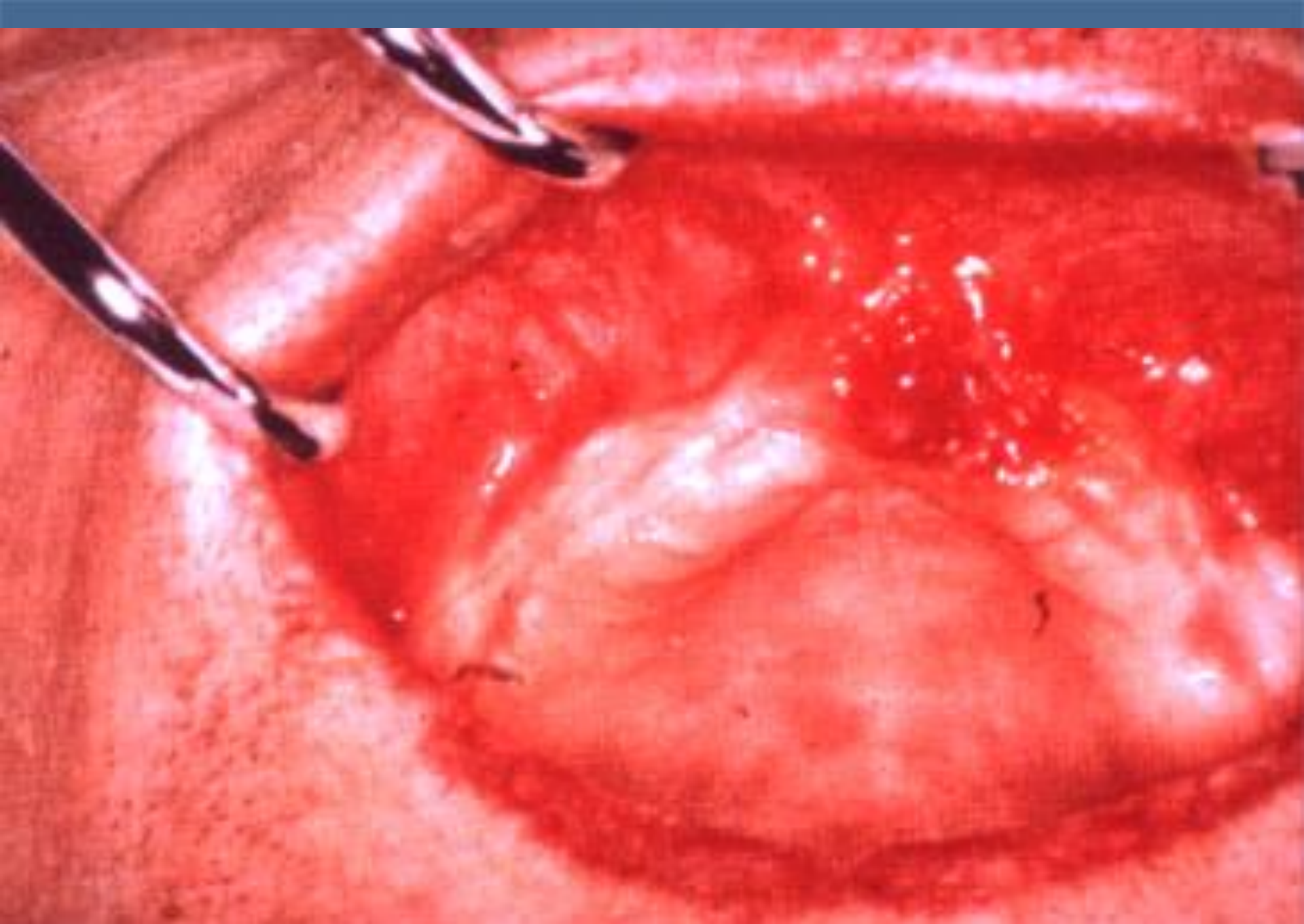
(scrophuloderma)

osteomyelitis tuberculosa

lupus vulgaris

(spreading by sputum, haematogenic or lymphogenic way)

Therapy: systemic antituberculotics or surgical excision





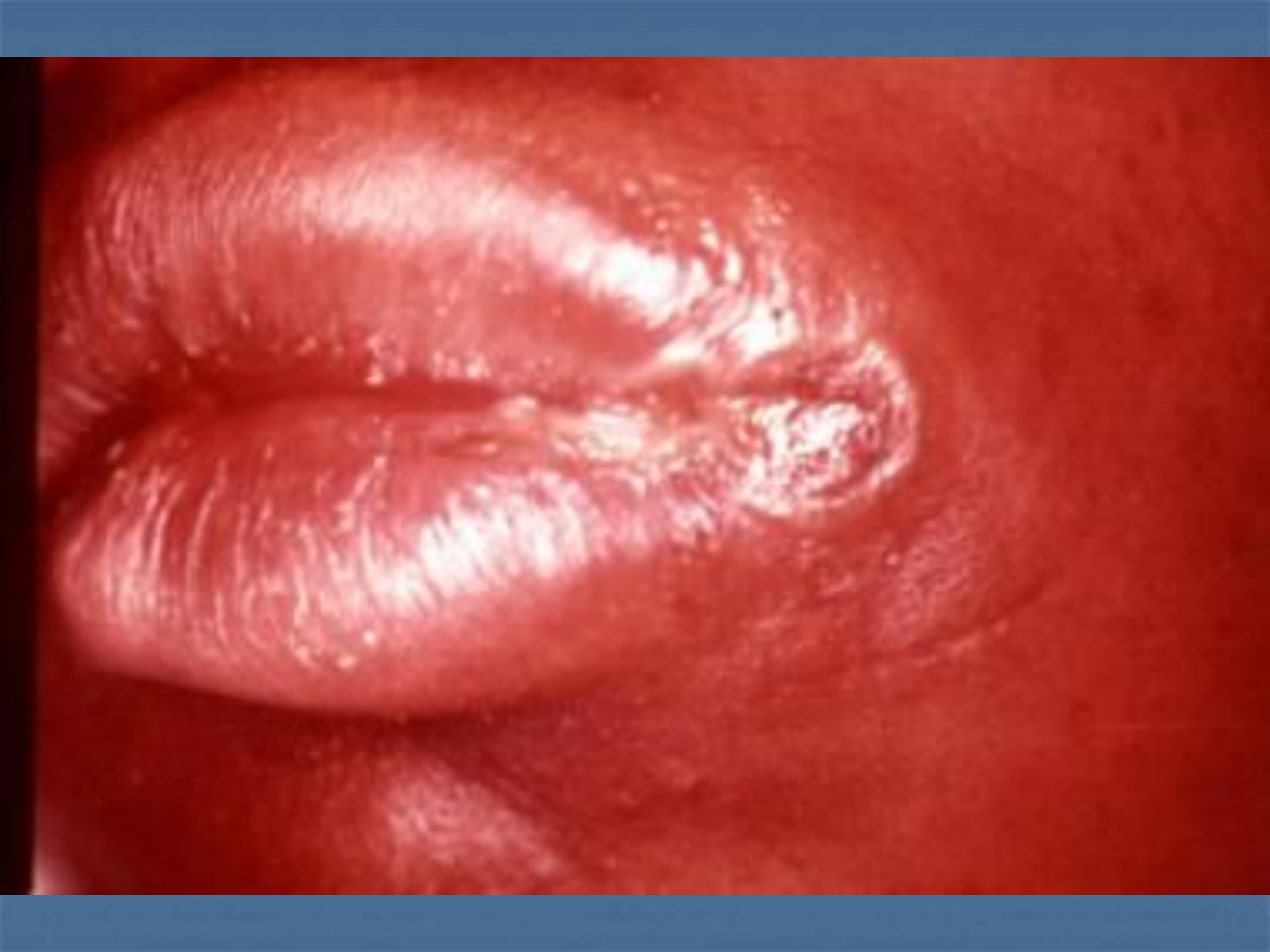
Syphilis

Oral symptoms:

- **Primer syphilis**- latency ~3 weeks.
 - Primer chancre- hard, elevated, reddish-brownish area
 - Ulcus durum- hard, unpainful ulcer
 - Bubo indolens-unpainful lymphadenomegalia of the regional lymphknotes
- **Secunder syphilis**- latency ~ 8-9 weeks
 - Roseolas, papulas- elevated areas
 - Plaque muqueuse- lentil-sized greyish-white elevated area
 - Cheilitis syphilitica- cheilitis angularis with erosion
 - Condyloma latum- wide based verruca from normal tissue

Syphilis

- Tertier syphilis- few years later
 - Gumma – destruction on the palatum, tonsils, tongue
 - Glossitis syphilitica sclerotisans – scaring and atrophy
 - Leukoplakia
- Syphilis connatalis
 - Mucosa symptoms similar to stage II.
 - Hutchinson-trias: barrel shapes, hypoplastic front teeth, cornea and inner ear degeneration















AIDS

- Oral symptoms:
 - Fungal infections: Candidiasis
 - Bacterial infections: gingivitis, parodontitis (severe process)
 - Viral infections: hairy leukoplakia, stomatitis herpetica
 - Tumors: Kaposi-sarcoma, non-Hodkin lymphoma
 - Ulcers, sialoadenitis, xerostomia



