ACUTE TONSILLITIS (STREPTOCOCCAL ANGINA)

ACUTE TONSILLITIS

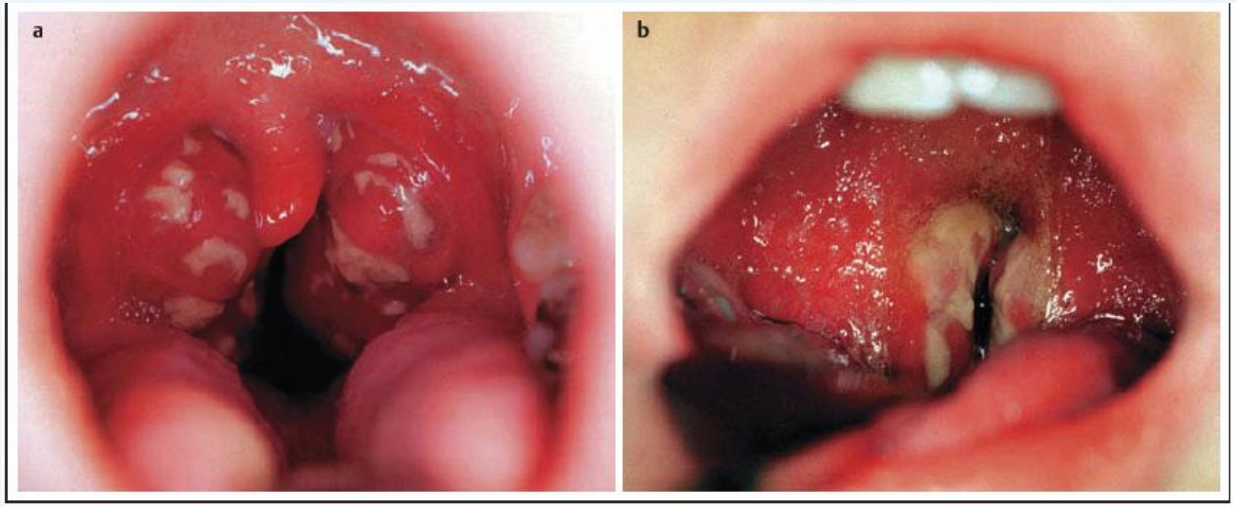
- Acute tonsillitis is an acute bacterial inflammation of the palatine tonsils that is generally caused by group A β-hemolytic streptococci.
- Rare cases may be caused by staphylococci, *Haemophilus influenzae*, or pneumococci.

CLINICAL FEATURES

- Characterised by a sore throat, fever, general malaise, dysphagia, enlarged upper cervical nodes and sometimes referred otalgia.
- Other symptoms are swollen tonsillar lymph nodes and muffling of speech due to oropharyngeal swelling.

DIAGNOSIS

- **Mirror examination:** Both tonsils are swollen, bright red, and coated (erythematous) and yellow or white pustules may be seen on the palatine tonsils, hence the name ‘follicular tonsillitis’.



a Typical appearance of the palatine tonsils, which are bright red, swollen, and coated.

b The tonsils in this patient were so swollen that they caused respiratory distress, necessitating an immediate tonsillectomy.

DIAGNOSIS

- **Inflammatory parameters:** The *blood count* shows leukocytosis, and the *erythrocyte sedimentation rate (ESR)* and *C-reactive protein (CRP)* are elevated.
- **Bacteriologic testing:** A *bacterial culture* is rarely taken from throat smears because it usually takes 2–3 days to obtain a definitive result, by which time treatment should already be initiated.

DIAGNOSIS

- It is better to perform a *rapid immunoassay*, which can identify the causative organism as a group A streptococcus in just 10 minutes.
- Swab should be taken at the time of examination as well as blood for Paul–Bunnell testing.

COMPLICATIONS AND SEQUELAE

Lingual tonsillitis

- In rare cases, the lingual tonsils may become inflamed and greatly swollen, and there may be concomitant edema involving the tongue base and laryngeal introitus. Endoscopic findings include marked hyperplasia of the lingual tonsils, which appear cylindrical with a stippled surface.

COMPLICATIONS AND SEQUELAE

- These patients may experience brief periods of progressive respiratory distress, requiring intubation. Patients with lingual tonsillitis should be hospitalized for observation and should receive high doses of antibiotics.

COMPLICATIONS AND SEQUELAE

Streptococcal gingivostomatitis

- Tonsillitis may be followed or accompanied by streptococcal gingivostomatitis, characterized by diffuse inflammation and redness of the gingival mucosa and the formation of gingival abscesses.
- These lesions may also be seen at other sites on the oral mucosa and on the lips.

COMPLICATIONS AND SEQUELAE

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- Abscess in the peritonsillar region causing severe pain and trismus.
- The trismus caused by spasm induced in the pterygoid muscles may make examination difficult but may be overcome by instillation of local anaesthesia into the posterior nasal cavity (anaesthetising the sphenopalatine ganglion) and the oropharynx.

COMPLICATIONS AND SEQUELAE

- Inspection reveals a diffuse swelling of the soft palate just superior to the involved tonsil, displacing the uvula medially.
- **In palpation** reveals tonsillar lymph nodes at the mandibular angle may be enlarged.
- In more advanced cases, pus may be seen pointing underneath the thin mucosa.

COMPLICATIONS AND SEQUELAE

- **Antibody mediated Sequelae of streptococcal tonsillitis**

Rarely, a delayed-type antigen-antibody reaction can give rise to poststreptococcal diseases involving

- the kidneys (**acute glomerulonephritis**)
- major joints (**acute rheumatic fever**), or
- heart (**rheumatic endocarditis**).

Besides appropriate medical therapy, the treatment of choice is tonsillectomy under antibiotic coverage.

COMPLICATIONS AND SEQUELAE

Tonsillogenic sepsis

- Tonsillogenic sepsis has become rare in the antibiotic era. It most commonly affects patients with weakened host resistance. In these cases, bacteria enter the bloodstream by the hematogenous or lymphogenous route, and the bacteremia can lead to full-blown sepsis.

COMPLICATIONS AND SEQUELAE

Retropharyngeal and parapharyngeal abscess

- An inflammation or abscess may arise from the prevertebral or parapharyngeal lymph nodes or by hematogenous spread as the result of a minor foreign-body injury or upper respiratory inflammation. This abscess is called a retropharyngeal or parapharyngeal abscess, depending on whether it is located between the spinal column and posterior pharyngeal wall or lateral to the pharyngeal wall.

COMPLICATIONS AND SEQUELAE

Chronic tonsillitis

- Chronic tonsillitis usually results from repeated attacks of acute tonsillitis in which the tonsils become progressively damaged and provide a reservoir for infective organisms.
- Like infections confined to the tonsillar crypts, recurrent inflammations of the tonsils and peritonsillar tissue can lead to permanent structural changes with scarring. Bacteria that grow on cellular debris in poorly drained crypts can perpetuate a smoldering inflammation, chronic tonsillitis.

COMPLICATIONS AND SEQUELAE

- In this condition the palatine tonsils provide a “focus” that can sustain a variety of diseases in other parts of the body (rheumatic fever, glomerulonephritis, iritis, psoriasis, inflammatory heart disease, pustulosis palmaris and plantaris, erythema nodosum).

Treatment

- The standard treatment for streptococcal tonsillitis is a 10–14-day course of benzyl- or phenyoxymethylpenicillin (penicillin V).
- Ampicillin is avoided as it may precipitate a rash in patients with infectious mononucleosis. Most cases resolve in a few days.
- This regimen should be continued for at least 7 days to avoid late complications.
- Macrolides or oral cephalosporins can be used in patients allergic to penicillin.
- Analgesics are also administered for pain relief.

Treatment

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- In the early stages, IV broad-spectrum antibiotics may produce resolution.
- However, if there is frank abscess formation, incision and drainage of the pus can be carried out under local anaesthesia.

Treatment

- A small scalpel is best modified by winding a strip of adhesive tape around the blade so that only 1 cm of the blade projects.
- In teenagers and young adults, the patient sits upright and an incision is made approximately midway between the base of the uvula and the third upper molar tooth.
- This may produce immediate release of pus, but, if not, a dressing forceps is pushed firmly through the incision and, on opening, pus may then be encountered.
- In small children, general anaesthesia is required.

Treatment

- The treatment of choice in chronic tonsillitis is **tonsillectomy**,
- In the surgery the tonsil is exposed by incision of the anterior faucial pillar, shelled out along the connective-tissue plane between the parenchyma and pharyngeal muscle, and detached at its inferior pole.