Tnosils and Adenoid

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Acute Tonsillitis

Acute tonsillitis is an infection which primarily affects the palatine tonsil. It may be the dominant feature of an upper respiratory tract infection when it is usually viral in aetiology, or it may present as a primary acute pharyngotonsillitis. The latter is also usually a viral infection involving the lymphoid tissue on the posterior pharyngeal wall and tonsil.

Although acute tonsillitis is seen in adults, it is most frequent in childhood, presumably because immunity to common childhood organisms has not been fully established. Common cold and coryza viruses (e.g. influenza, parainfluenza, adenoviruses, enteroviruses and rhinoviruses) are the commonest cause of tonsillitis. An initial viral tonsillitis may predispose to a secondary bacterial tonsillitis (Streptococcus pyogenes, Streptococcus pneumoniae, Haemophilus influenzae, Actinomyces, found in so-called tonsillar debris) and anaerobic organisms.

Clinical Features:

There may be a prodromal illness with pyrexia, malaise and headache for a day before the onset of the predominant symptom, a sore throat. Pain may radiate to the ears and suggest acute otitis media until the ears are examined (referred otalgia) and there may be tender cervical lymphadenopathy.

Swallowing may be painful (odynophagia) and the patient's voice may sound muffled due to enlarged tonsils from acute tonsillar hyperplasia. Acutely enlarged tonsils may cause stertor (noisy breathing due to airway obstruction above the larynx) and acute obstructive sleep apnoea. There may be trismus and dribbling. Children may have abdominal pain and vomiting. Examination shows hyperaemic tonsils with pus and debris in the crypts.

Diagnosis

The most important is to differentiate between viral or bacterial infection, this is usually depend on the Centor criteria. These have been used to determine if an adult with a sore throat is likely to have a bacterial aetiology

here are four criteria each scoring one point:

1. pyrexia.
2. Tonsillar exudate.
3. Tender anterior cervical lymphadenopathy.
4. Absence of a cough.

Patients with a score of 3 or 4 should be treated with antibiotics.

Treatment:

Penicillin V is still the drug of choice, with erythromycin reserved for those patients allergic to penicillin. Amoxicillin should not be used to treat acute tonsillitis in case the patient has infectious mononucleosis, when a generalised maculopapular rash develops in 92% of patients (this can scar). If a quinsy is suspected, then metronidazole should be added because pus cultured from such patients often grows a mixed population of bacteria including anaerobes. The patient should have paracetamol for analgesia. Aspirin is contraindicated in children because of the risk of Reye's syndrome. Fluid replacement and bed rest are important.

Complications of acute tonsillitis

1. Local

a. Severe swelling causing respiratory obstruction.

b. Abscess formation: _ Peritonsillar (quinsy).

_ Parapharyngeal.

_Retropharyngeal.

c. Acute otitis media.

d. Recurrent acute tonsillitis (chronic tonsillitis).

2. General

a. Septicaemia.

b. Meningitis.

c. Acute rheumatic fever.

d. Acute glomerulonephritis.

Tonsillectomy

Is a surgical procedure to remove the palatine tonsils

Indications

1. Recurrent acute tonsillitis.

2. Upper airway obstruction or sleep disordered breathing due to enlarged tonsils.

3. suspicion of malignancy in the tonsil, like an abnormal-looking tonsil(s).

4. Part of another procedure (uvulopalatopharyngoplasty [UVPP], access to glossopharyngeal nerve or styloid process).

5. Previous episodes of peritonsillar abscess (quinsy).

Contraindications:

a. Recent episode of tonsillitis or upper -respiratory tract infection (within 2 weeks).

b. Bleeding disorder.

c. Oral contraceptives. Each hospital should have its own policy for patients taking the oral contraceptive pill and who are undergoing surgery.

d. Cleft palate.

e. During certain epidemics (e.g. polio).

Complications:

Peri-operative

a. Anaesthetic reaction.

b. Damage to teeth.

c. Trauma to the palate and posterior pharyngeal wall from the ear, nose and throat (ENT) surgeon (careless insertion of the tongue blade) or anaesthetist (insertion of pharyngeal airway or from suctioning).

d. Straining or dislocation of the temporomandibular joint by over-opening the mouth gag.

Immediate

a. Reactionary haemorrhage.

b. Anaesthetic complications.

Early

a. Secondary haemorrhage.

b. Haematoma and oedema of the uvula. Nasal regurgitation and hyponasality (from traumatizing or excising too much of the soft palate).

c. Infection (may lead to secondary - haemorrhage).

d. Otalgia (referred otalgia or due to acute otitis media).

e. Pulmonary complications (pneumonia and lung abscess are rare).

f. Sub-acute bacterial endocarditis (if the patient has a cardiac defect).

Late

a. Scarring of the soft palate (limiting mobility, possibly affecting the voice).

b. Tonsillar remnants (which may be the site of recurrent acute infection).

Adenoids

The adenoids are a mass of lymphoid tissue found at the junction of the roof and posterior wall of the nasopharynx. The size of the adenoids varies, but in general, they attain their maximum size between the ages of 2 and 7 years, as part of the widespread process of lymphoid hyperplasia that occurs in this age group, and then usually regress in size to become almost negligible by the age of 13 years.

Inflammation, most commonly due to acute viral and bacterial infections, and also allergy and other inflammatory conditions, results in hyperplasia with enlargement and multiplication of the lymphoid follicles. Most of the pathological effects attributed to the adenoids are due to this increase in size. The symptoms caused by hypertrophy result from the obstruction of the nasopharynx and eustachian tube orifices. Persistent bacterial colonisation and biofilms are also contributory factors.

Clinical features:

Nasal obstruction leads to mouth breathing, snoring and hyponasal speech. Infants may have difficulty in feeding because they must stop sucking intermittently to take a breath. Nasal discharge, often mucopurulent, and post-nasal drip may develop because of secondary chronic rhinitis and sinusitis. Besides snoring, some children may suffer from episodes of sleep apnoea. The child with the characteristic adenoid facies appearance (an open lip posture, prominent upper incisors, a short upper lip, a thin nose, and a hypoplastic maxilla with a high-arched palate) is rarely seen nowadays because parents and GPs are better informed about the management of obstructive symptoms.

Eustachian tube obstruction may result in otalgia and deafness due to recurrent bouts of acute otitis media and otitis media with effusion(glue ear).

lateral soft tissue radiograph. This will give a measure of the absolute size of the adenoids and an assessment of their proportion in relation to the size of the airway.

Medical treatment by use of oral antihistamine for 3 weeks

Indication of adenoidectomy

1 •• Nasal obstruction—especially if associated with significant and persistent mucopurulent rhinorrhoea, suggesting chronic nasal cavity infection.

2 •• Otitis media with effusion (glue ear).

3 •• Recurrent acute otitis media.

4 •• Sleep apnoea—often an adenoidectomy is performed in association with a tonsillectomy.

Contraindication

•• Recent upper or lower respiratory tract infection.

•• An uncontrolled bleeding disorder.

•• Cleft palate—either overt or sub-mucosal

Complications:

<u>1. Immediate:</u>

• Anaesthetic complications.

• Soft palate damage.

• Persistent haemorrhage.

• Sub-luxation of the atlanto-axial joint, or other damage to the cervical spine.

<u>2. Intermediate:</u>

• Secondary haemorrhage.

• Sub-luxation of the atlanto-occipital joint (secondary to infection).

<u>3. Late:</u>

• Eustachian tube stenosis.

• Nasal escape and regurgitation and hypernasal speech (rhinolalia aperta).

• Persistence of symptoms.