PALATINE TONSILS

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Tonsillar Bed
ARTERIAL SUPPLY OF TONSIL

Fig. 50.3 Arterial supply of tonsil.
STRUCTURE OF TONSIL

- Plica semilunaris
- Plica triangularis
- The medial surface of the tonsil presents from twelve to fifteen orifices leading into small crypts or recesses from which numerous follicles branch out into the tonsillar substance.
- The lateral or deep surface is adherent to a fibrous capsule which is continued into the plica triangularis.
HISTOLOGY OF TONSIL

- Aggregates of lymphocytes arranged in a follicular manner embedded in a stroma of connective tissue.
- Stratified Squamous Epithelium extends irregular convoluted invaginations into parenchyma forming crypts.
GRADING OF TONSILLAR SIZE
**TONSILLAR DISEASE**

- Recurrent acute tonsillitis
- Chronic tonsillitis
- Obstructive tonsillar hyperplasia
ACUTE TONSILITIS

Acute Tonsillitis

Swollen uvula

White follicles on tonsils
FOLLICULAR TONSILITIS
KISSING TONSILS
PERITONSILLAR ABSCESS

- A collection pus forms between tonsil and its bed.
- Prior to formation of pus there is frequently a period of peritonsillar cellulitis.
- Patient presents with severe pharyngitis lateralised to one side.
- Marked associated lymphadenopathy.
- Severe trismus.
- Spontaneous rupture possible.
PERITONSILLAR CELLULITIS
Quinsy
QUINSY
QUINSY ON CT
**TREATMENT**

- Immediate hospitalisation.
- Assess airway
- Spontaneous rupture carries risk of aspiration
- Aspiration of abscess with wide bore needle along with antibiotic therapy
- Incision drainage
- Interval tonsillectomy
ASPIRATION OF QUINSY
INCISION AND DRAINAGE

Retractor

Tongue

Displaced Right Tonsil

Pus Follicle on Left Tonsil

Swollen Uvula

Right Peritonsillar Abscess

Incision and Drainage of Right Peritonsillar Abscess

Pus flowing from incised abscess

Right Tonsil

Uvula
FOREIGN BODY LODGED IN TONSIL
Tonsilloliths

- Occur more frequently in adults
- Recurrent sore throats, chronic cough or otalgia
- Initially, these concretions are soft and cheesy, but with time, they calcify and become hard calculi
UNILATERAL ENLARGEMENT OF TONSIL

- Squamous Cell Carcinoma
- Lymphoma
UNILATERAL ENLARGEMENT OF TONSIL

CYST

Intra-tonsillar Abscess

Fig. 2. Exéresis quirúrgica del tonsilolito. Surgical removal of the tonsilolith.
INFECTIOUS MONONUCLEOSIS
INFECTIOUS MONONUCLEOSIS

Uvula
INFECTIOUS MONONUCLEOSIS OR "KISSING DISEASE"

- Caused by the Epstein-Barr virus
- Symptoms are fever, sore throat, and swollen lymph glands.
- Sometimes, a swollen spleen or liver involvement may develop.
- Heart problems or involvement of the central nervous system occurs only rarely
- Rarely fatal
Heterophile antibodies (monospot) help confirm the diagnosis.

Titers of IgM and IgG are most specific.

Treatment is usually supportive. In cases in which adenotonsillitis is so severe that airway symptoms emerge, steroid and antibiotic therapy may be necessary.

Ampicillin and Amoxicillin have been associated with a rash in 90% of EBV patients and should be avoided.
DIPTHERIA
DD OF ULCERO-MEMBRANOUS LESIONS OVER TONSIL

- Diptheria
- Infectious mononucleosis
- Agranulocytosis
- Streptococcal tonsillitis
- Leukaemia
- Oral candidiasis
- Apthous ulcers
INDICATION GUIDELINES FOR TONSILLECTOMY

- Patient with 3 or more infections of tonsils and/or adenoids per year despite adequate medical therapy.
- Hypertrophy causing dental malocclusion or adversely affecting orofacial growth documented by orthodontist.
- Hypertrophy causing upper airway obstruction, severe dysphagia, sleep disorders, or cardiopulmonary complications.
INDICATION GUIDELINES FOR TONSILLECTOMY

- Peritonsillar abscess unresponsive to medical management and drainage documented by surgeon, unless surgery performed during acute stage.
- Persistent foul taste or breath due to chronic tonsillitis not responsive to medical therapy
INDICATION GUIDELINES FOR TONSILLECTOMY

- Chronic or recurrent tonsillitis associated with the streptococcal carrier state and not responding to beta-lactamase-resistant antibiotics.
- Unilateral tonsil hypertrophy presumed neoplastic.
- Recurrent suppurative or otitis media with effusion.
TONSILLECTOMY BY BLUNT DISSECTION
COLD/BLUNT DISSECTION
BLUNT DISSECTION
ELECTROCAUTERIZATION

- It is currently the most popular technique for tonsillectomy.
- When compared to cold dissection, there is no difference in postoperative hemorrhage rates, but electrosurgery increases pain.
- The reduction in operative time and intraoperative blood loss has made it the most commonly performed technique of tonsillectomy.
ELECTROCAUTERIZATION
INTRACAPSULAR TONSILECTOMY

- A microdebrider set at 1500 rpm in the oscillating mode is used to perform the intracapsular tonsil resection.
- A thin rim of lymphoid tissue was left on the capsule.
- Suction cauterity was used for hemostasis.
The harmonic scalpel is an ultrasonic dissector coagulator that utilizes ultrasonic vibration to cut and coagulate tissues.

- The cutting mechanism is possible with the sharp blade with a vibratory frequency.

- The coagulation mechanism occurs by transferring mechanical energy to tissues.

- This breaks hydrogen bonds of proteins and generates heat from tissue friction.

- The temperature of the harmonic scalpel is lower than electrocautery (50° – 100° C, 150° – 400° C, respectively).

- Hence there is less thermal damage to tissues.
HARMONIC SCALPEL TONSILLECTOMY
Laser Tonsillectomy

- The CO2 and KTP lasers have been used to perform tonsil surgery.
- Laser provides little benefit over dissection tonsillectomy except to minimize intraoperative bleeding.
COBLATION OR COLD ABLATION

- It is a technique that utilizes a field of plasma, or ionized sodium molecules, to ablate tissues.
- Bipolar radiofrequency energy is transferred to sodium ions, creating a thin layer of plasma.
This effect is achieved at temperatures from 40° to 85° C, in comparison to electrocautery which can reach above 400° C.

The reduction in thermal injury to surrounding tissues offers reduced postoperative pain and morbidity.
PERIOPERATIVE COMPLICATIONS OF TONSILLECTOMY

- TM joint dysfunction
- Trauma to surrounding structures
- Nontraumatic atlantoaxial subluxation, due to infection in periodontoid vascular plexus, bringing about spinal ligament laxity
HAEMORRHAGE

- Primary (within first 24 hours)
- Secondary (after 24 hours)
P O I N T S  T O  R E M E M B E R

- Cold steel dissection tonsillectomy is widest available with lowest post-op haemorrhage
- Adequate analgesia in post-op period mandatory
- In secondary haemorrhage surgery is rarely needed. Bleeding settles with Abx therapy alone