4) Pharyngeal Abscess – Dr. Sherko

Besides the peritonsillar abscess, infection from a tonsil can travel to the retropharyngeal or parapharyngeal spaces and lead to development of an abscess.

Retropharyngeal Space

- The retropharyngeal space is bounded anteriorly by the buccopharyngeal fascia and visceral fascia over the oesophagus and posteriorly by the anterior layer of deep fascia over the cervical vertebrae. Inferiorly this space communicates with mediastinum. The space contains lymph nodes or Rouvier which drain the nasopharynx, part of the oropharynx and paranasal sinuses.
- A retropharyngeal abscess develops because of infections in this space.

Pharyngeal Space

- It is a lateral pharyngeal space which extends from the base of the skull above to the level of hyoid bone below.
- It is bounded medially by the fascia over the pharynx and laterally by the fascia over the medial pterygoid muscle and the parotid glands. Posteriorly lies the carotid sheath with its contents. The space communicates with retropharyngeal space and submaxillary space and inferiorly with the mediastinum. It is divided into pre- and post-pterygoid portions by the styloid process.

ACUTE RETROPHARYNGEAL ABSCESS

Aetiology

- It is an uncommon condition, usually affecting children. It results from suppuration of the retropharyngeal lymph nodes secondary to infection in adenoids, sinuses or tonsils. The abscess may occur in adults after trauma by a foreign body or on endoscopy.

Clinical Features

- The patient complains of fever, malaise and difficulty in swallowing. The abscess in late stages may present with respiratory difficulty.
- The patient is ill, febrile, and looks toxic. The posterior pharyngeal wall may appear bulging. X-ray of the soft tissue of the neck shows a widened retropharyngeal space. There is increased distance between the laryngotracheal air column and anterior border of the cervical vertebra.

Treatment

- Systemic antibiotics are given. The abscess needs drainage. The patient is held supine on the table with the head end lowered to prevent aspiration or pus into the larynx. An incision is given in the posterior pharyngeal wall and the pus sucked out.

CHRONIC RETROPHARYNGEAL ABSCESS

- This occurs due to tuberculosis of the cervical spine. Radiography of the cervical spine shows destruction of the vertebra. Drainage is done through a neck incision in the neck triangle.
- Antitubercular treatment is given for the required period.

PARAPHARYNGEAL ABSCESS

- The infection may travel to the parapharyngeal space from the tonsils, teeth or other oropharyngeal or parotid lesions, as well as from the submandibular glands.
Clinical Features

- The patient looks ill, toxic and febrile and complains of difficulty in swallowing and may present with trismus.
- The oropharyngeal examination may reveal a primary focus of infection. Examination of the neck shows a diffuse tender swelling below the angle of the mandible on the affected side.

Treatment

- Antibiotics are given to control the infection. The abscess is drained through a lateral neck incision given anterior to the sternomastoid from the angle of mandible to the hyoid bone.
- Early drainage is done to prevent serious complications like thrombosis of major vessels and spread of infection to other spaces.

Miscellaneous Conditions of the Throat

PLUMMER VINSON OR PATTERSON BROWN-KELLY SYNDROME

- This condition is characterized by dysphagia, anaemia angular stomatitis glossitis particularly affecting women. The other associated features are achlorhydria koilonychias and splenomegaly.
- The anaemia is of the hypochromic microcytic type and this condition is also called sideropenic dysphagia. There occurs thinning of the mucosa of the upper alimentary tract. Web formation may occur in the hypopharynx. Dysphagia is thought to be due to webs or muscular incoordination at the cricopharynx. Peripheral blood smear shows a picture of iron deficiency anaemia. Serum iron level is reduced and iron binding capacity is increased,
- Barium swallow may show web formation or narrowing.

Treatment

- Follow-up is necessary as this condition is premalignant. Therapy with iron is helpful. Endoscopic dilatation of the postcricoid region may be required.

GLOBUS HYSTERICUS (Globus Pharyngies)

- It is a functional disorder in which the patient complains of a lump in the throat. There is no dysphaegia. Examination reveals nothing significant in the throat. The patient often has a cancer phobia.
- The patient needs to be reassured. Tranquillizers may be prescribed. If the symptoms persist, a barium study of the larynx or endoscopy may be done to rule out any hidden organic lesion.

PALATAL AND PHARYNGEAL PALSY

Paralysis of the soft palate and pharynx may occur in a variety of neurological disorders. The common causes are the following.

i. Diphtheretic neuritis
ii. Bulbar palsy
iii. Motor neuron disease
iv. Poliomyelitis
v. Encephalitis
vi. Vascular lesions in the brain
vii. Lesions at the jugular foramen
• Paralysis due to diphtheria usually occurs after the third week of the disease. A history of sore throat is forthcoming but sometimes, the patient may not have noticed any such symptoms before.
• The patient presents with a history of regurgitation of fluids through the nose and may notice nasal twang of voice (rhinolalia aperta). The associated pharyngeal involvement leads to dysphagia and coughing on swallowing.
• On examination, the palate on the corresponding side is immobile. If the patient is made to say "Ah" the palate is drawn towards the normal side.

Treatment
• The treatment is directed towards the cause. In palatal palsy if diphtheria is suspected, the antidiphtheria serum is given. The patient is advised bed rest. A course of steroid therapy and neurotrophic vitamins may help. Regurgitation through the nose is prevented by asking the patient to pinch the nose during swallowing. If pharyngeal paralysis is associated then a Ryles tube is used for feeding purposes. Oropharyngeal secretions need frequent suction. A tracheostomy using cuffed tube may be necessary to prevent pneumonia. Circopharyngeal myotomy may help some patients in swallowing and prevents aspiration.

PHARYNGEAL SPASM
• Spasms of the pharynx occur in tetanus and rabies. The patient cannot swallow owing to lack of coordination of various movements during the process of deglutition and there occurs aspiration into the larynx. Attempts to swallow lead to spasms. Treatment is directed towards the cause. Tracheostomy may be needed to prevent aspiration pneumonia.

PHARYNGEAL POUCH
• It is a pulsion diverticulum which occurs between lower cricopharyngeal and upper thyropharyngeal fibres on the inferior constrictors muscle of the pharynx. The area is known as Killian's dehiscence.
• It is probably due to neuromuscular incoordination during swallowing which manifests as a failure or relaxation of the cricopharyngeal sphincter and its premature contraction before the bolus has passed down into the oesophagus.
• The patient presents with dysphagia and regurgitation. Patients with large pouches feel that they require a longer time to complete a meal as the food fills the pouch. Spill over from the pouch into the larynx may produce cough and aspiration.
• Barium swallow is diagnostic of pouch formation.

Treatment
• The pouch may be excised through a neck incision. Alternatively endoscopic division of the partition wall between pouch and oesophagus is done by diathermy. Circopharyngeal myotomy is successful in small pouches.

TRISMUS (LOCKJAW)
• In general, this condition is regarded as the inability to open the mouth adequately. Under normal conditions in an adult, the mouth may open to a distance of 3.5 to 4 cm between the incisor teeth. The muscles which close the mouth are temporalis, masseter and medial pterygoids and muscles which open the mouth include mainly the lateral pterygoids, mylohyoid and infrahyoid muscles. The muscles of closure are more powerful than the muscles which open the mouth. It has been estimated that closing muscles exert a pressure of 100 to 300 pounds per square inch while the openers exert about 25 pounds per square inch. This relative weakness of the opening musculature is a primary factor in the patient's inability to open the mouth when some pathology involves the mandible and its surrounding tissues.
Causes

1. Muscle spasm as found in the following:
   a. Tetanus
   b. Arthritis of temporomandibular joint
   c. Acute parotitis
   d. Mumps
   e. Alveolar abscess
   f. Impacted wisdom tooth
   g. Hysteria
2. Unreduced dislocation.
3. Contractures due to the following:
   a. Burns
   b. Lupus vulgaris
   c. Cancrum oris
   d. Operated scars
   e. Application of radium
   f. Submucous fibrosis with adhesion bands.
4. Carcinoma of the cheek, tonsil (Fig 50.2; Plate V), maxilla and parotid gland.
5. True ankylosis following arthritis of temporomandibular joint

Treatment

- Is directed towards the cause. If due to true ankylosis, excision of condyle is the line of treatment.

ELONGATED STYLOID PROCESS (STYLAGIA)

- The styloid process of the temporal bone is about 2.5 cm long in an adult. In 4% of the population the styloid process is grossly enlarged and may give rise to symptoms. The elongated styloid process can be felt through the pharynx in the tonsillar bed or posterior pillar and the process is in close relationship with the glossopharyngeal nerve.

Clinical Features

- Two types of symptoms maybe present
- Classically the patient complains of dull or intermittent pain in the throat and ear on that side, especially after deglutition. Difficulty in swallowing and a foreign body sensation in the throat persist. On the other hand, the patient may present with the styloid process-carotid artery syndrome. An elongated styloid process may impinge against carotid arteries and cause disturbances in circulation as well as irritation of the nerves plexus around the vessels. The patient complains of parietal headache and pain along the distribution of the artery involved.
- The diagnosis of an elongated styloid process can be made by palpating for process through the tonsillar bed and by radiography, which shows an abnormality long process.

Treatment

- Treatment of a symptomatic elongated styloid process is its surgical removal.
- In transpharyngeal excision, tonsillectomy is done and the styloid process felt through the tonsillar fossa, where it is exposed by a dissecting forceps. The periosteum is elevated around the process and a portion of it is removed.
- The enlarged styloid process can also be excised by an external approach. An incision is given along the anterior border of the sternomastoid from the tip of the mastoid to the hyoid bone. The anterior border of the sternomastoid is muscle is retracted, the process exposed by a deep dissection and a portion of it is removed.