

Affection of guttural pouch

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Guttural pouches:

- Present only in **equines**
- GP-large mucous sac which is ventral diverticulum of the Eustachian tube located in cranial cavity
- It is covered laterally by the Pterygoid muscles, parotid and mandibular glands.
- The floor lies mainly on the pharynx and beginning of the esophagus.
- It connects the pharynx through the pharyngeal orifice of the Eustachian tube.
- The medial retropharyngeal lymph node lies between the pharynx and ventral wall of the pouches.

Empyema:

- Empyema of the guttural pouch refers to the accumulation of exudates within a guttural pouch empyema should be considered whenever the patient is affected with chronic mucopurulent nasal discharges.

Etiology

Most often secondary to other disease process.

- Respiratory tract infection caused by viral agents (Influenza), bacterial agents (strangle) or combination of both.
- URT infections, especially caused by streptococcus equi
- Retropharyngeal abscesses
- Trauma for example: stylohyoid fracture

Clinical signs

Distention of guttural pouch forming a palpable, fluctuating visible swelling behind the jaw

- Head is kept lowered during feeding or drinking
- Massive distension will interfere with swallowing and breathing (Dysphagia and dyspnea).
Respiratory noise
- Pressure on the distended pouch may cause a mucopurulent nasal discharge
- Chronic cases may develop chondroids (inspitated pus with the appearance of cottage cheese)
- Pharyngeal paralysis and dysphagia may be complication of an advanced disease process.

Tympanitis/Emphysema

Characterized by abnormal filling and distension of the GP with air.

- Usually observed in young ones, supporting its congenital occurrence and appears to affect female greater than male

Most often occurs as unilateral but sometimes may be bilateral.

Etiology:

- The air apparently enters the pouches during expiration or when the animal is swallowing due to the formation of gas.

Clinical symptoms

- Diffuse painless, elastic, tympanic swelling in the parotid region
- Unilateral distension of the pouch enough pressure on the tissue to produce bulging in the area of the guttural pouch.
- In this case, if needle is inserted in previously distended pouch and air is removed the swelling subsides on both sides.

Surgical approach:

Two surgical approaches for guttural pouch-

1. Viborg's triangle approach: for drainage of the guttural pouch in cases of empyema and for treatment of tympanities.

2. **Hyovertebrotomy** approach: provides access through the dorsolateral aspect of the guttural pouch and is used for removal of chondroids and inspissated pus; treatment of guttural pouch mycosis.

Viborg's triangle :

1. Rostral- caudal margin (ramus) of the mandible
 2. Ventral -linguofacial vein
 3. Dorsocaudal- tendon of insertion of sternocephalicus muscles
- For drainage of pus and air removal from the guttural pouch (viborg's triangle)
 - An incision of about 4cm in length is made at the viborg's triangle through skin and fascia.
 - Blunt dissection with the help of finger or blunt instruments is done between the external maxillary vein and ventral muscle of the neck (I.e omohyoides and sterno hyoides)
 - Stab incision is made through the ventral wall of the pouch
 - The spring in the pouch may be enlarged to provide

Hyovertebrotomy :

- For removal of inspissated mass or chondroids or food materials.
- An incision of about 3-4 inches in length is made in skin and subcutaneous at 2cm anterior to and parallel with anterior border of the wing of atlas.
- The facial attachment of the parotid gland to the wing of atlas is bluntly separated and reflected cranially
- Guttural pouch is recognized just medial to the bifurcation of the carotid artery
- An incision is made through the lateral wall of guttural pouch
- The incision is enlarged with the help of index finger sufficient to remove inspissatedpus or food particles
- Incision are not sutured and allowed to heat in an open wound.



Thank you