

Diseases of the Sinus

1. Catarrh of the Maxillary Sinus

Definition:

It is a chronic catarrh or inflammation of the mucosa of the maxillary sinus usually gives rise to the accumulation of mucopurulent exudation. This condition is common in old horses and is usually unilateral.

Causes:

- (1) Traumatic.
- (2) Extension from nasal catarrh or by extension diseases of teeth and alveoli.
- (3) In some infectious diseases (such as glanders and malignant catarrhal fever).

•Symptoms:

- (1) Unilateral nasal discharge, which at first is mucoid then mucopurulent then purulent and foetid. It is more clear after exercise and dropping of the head.
- (2) The animal lowers the head, snorts and cough.
- (3) White streaks are formed on the upper lip when the affection continues for a long time.
- (4) Conjunctivitis and lacrimation, due to extension of the inflammation to the lacrimal ducts and sacs.
- (5) Tenderness is usually present during pressure over the sinus.
- (6) Difficulty in respiration and swelling of sub-maxillary lymph glands.

Diagnosis:

- (1) From clinical symptoms.
- (2) Exclude glanders by mallein test.

Treatment:

- (1) Removal of the affected tooth if present.
- (2) Trephining followed by repeated irrigation of the cavities by astringent solutions and physiological saline.

2. Catarrh of the Frontal Sinus**Definition:**

It is a chronic inflammation in the mucous membrane of the frontal sinus with the formation of mucopurulent masses of exudate. Causes: As catarrh of the maxillary sinus.

NB: Sinusitis in pet animals is usually caused by dental diseases. It usually involves the frontal and maxillary sinuses.

Symptoms:

- (1) Unilateral fetid nasal discharge especially during snorting and after cough.
- (2) The frontal bone and base of the horn are sensitive to pressure and percussion.
- (3) In cattle, the head is held to the side affected in unilateral affection.
- (4) Epileptic attacks may be present.

Diagnosis:

- (1) The affection is easily recognized by the tenderness to pressure in the frontal region and base of the horns.

- (2) Nasal discharge is present.
- (3) Area affected is warm to touch.

Treatment:

- (1) Remove the initiating cause.
 - (2) Trephining of the frontal bones and irrigation by normal saline.
 - (3) Antibiotic.
 - (4) Injection of enzymes. In pet animals, local installation of enzymes (trypsin) helps to liquefy the pus and tissue debris
- Diseases of the guttural pouch Catarrh of the Guttural Pouch
Definition: It is an acute or chronic inflammatory process in the pouch with accumulation of masses of exudate.

Causes:

- (1) Traumatic.
- (2) Foreign bodies or food particles.
- (3) May be secondary to pharyngitis due to the extension of the inflammation from the upper parts of the nasal cavities.
- (4) Glanders.
- (5) Mycosis.

Clinical findings:

- (1) Pharyngitis.
- (2) Mucoïd or purulent nasal discharge.
- (3) Slight enlargement of the submaxillary glands (4) Enlargement of the parotid regions.

Complications:

- (1) Stenosis of the larynx.
- (2) Dysphagia with regurgitation caused by narrowing of the pharyngeal cavity.
- (3) Edema and swelling of the pharyngeal wall.
- (4) Aspiration pneumonia may develop.

Treatment: (1) Lower the head several times daily in order to evacuate the exudate.

- (2) Press on the guttural pouch area to help evacuation.
- (3) Antibiotic.

NB: Irrigation is forbidden because of the possibility of aspiration pneumonia.

Tonsillitis (in pet animals) The canine tonsils are elongated and fusiform and are attached by a somewhat narrowed base. The tonsils consist of aggregations of lymphoid tissue. They play an important role in preventing the entrance of microorganisms into the general circulation because of the phagocytic macrophages, which they contain.

Causes:

- (1) Infection is usually caused by *Streptococcus hemolyticus*.
- (2) Chronic vomiting, regurgitation and bronchitis result in secondary tonsillitis.

Symptoms:

- (1) Cough.
- (2) Fever.
- (3) Inappetence.

(4) Dysphagia and salivation.

Diagnosis:

By inspection of the tonsils. (1) Acutely inflamed tonsils appear bright red, and inflammation of the surrounding mucosa may be obvious. (2) Punctuate hemorrhages may also be seen. (3) Localized abscesses may be visible as white spots on the surface of the tonsils. Treatment: (1) Antibiotic (as penicillin) or broad-spectrum antibiotics. (2) Analgesic drugs to relief pain. • NB: Tonsillectomy provides permanent relief from clinical signs.

Diseases of larynx and trachea (next lecture)

Laryngitis and trachitis

Definition:

It is an inflammation of the air passages of the larynx, trachea and sometimes bronchi. It is characterized by cough, noisy inspiration and respiratory troubles.

Causes: (1) Sudden exposure to cold. (2) Inhalation of irritant gases and vapour or dusty air.

(3) Bad usage of stomach tube or probage.

(4) Excessive drinking or blowing or barking.

(5) In course of some infectious agents such as infectious equine bronchitis, strangles and equine influenza virus infection, Equine viral rhinopneumonitis, equine viral arteritis, calf diphtheria, bovine rhino-trachitis, pharyngeal abscess or retropharyngeal lymph node rupture.

Clinical signs:

(1) Cough is the classical sign, it is short, dry and harsh with long interval in acute affections and can be easily induced by pinching

of the trachea or larynx then become moist long cough with short interval (chronic).

(2) Inspiratory dyspnoea varies according to the degree of obstruction.

(3) Fever in cases of infection.

(4) Nasal discharge and swelling of the nasal mucous membranes if there is extension of inflammation.

(5) Palpation of the larynx reveals pain and cough.

(6) Swelling of the submaxillary lymph gland.

(7) Inspiratory dyspnoea in severe cases.

(8) Slight rise of body temperature, but it will be so high in infectious diseases.

(9) Dysphagia, when the inflammation extended to the pharynx.

Course o f the disease: Only few days, but if neglected, it may extend to 2 weeks.

Diagnosis:

It depends on: (1)History.

(2)Clinical symptoms.

Treatment:

(1) Remove or treat the real cause.

(2)Non steroidal antiinflammatory drugs, such as phenylbutazone used to decrease fever and maintain the appetite during the acute phase o f the infection.

(3) Antibiotic for secondary bacterial infection after culture and sensitivity test or use broadspectrum antibacterial and or trimethoprim sulpha, for 5-7 days