



Lecture title: Stomatitis

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Summary: Stomatitis

- ❖ It is inflammation of oral mucosa includes glossitis (inflammation of the tongue), gingivitis (inflammation of the mucosa of the gums), palatitis (inflammation of the palate).
- ❖ Clinically characterized by partial or complete loss of appetite, smacking of the lips, and profuse salivation. It is commonly an accompaniment of systemic disease.



Etiology:

- ❖ Stomatitis may be due to trauma, injury by foreign body, sharp teeth, harsh food called abrasion food materials, Eating frozen feed and drinking hot water (**physical agents**).
- ❖ **Bacterial, Viral, or Mycotic infections (biological or infectious agents):**
- ❖ **Such as** oral necrobacillosis associated with *Fusobacterium necrophorum*, Actinobacillosis (wooden tongue), Ulcerative granulomatous lesions may occur on the gums in cases of actinomycosis, Stomatitis with vesicles occurs in FMD and in vesicular stomatitis and P.P.R, Granulomatous lesions caused by ecthyma are not unusual in the mouth, oral lesions occur in bad cases of sheep pox.
- ❖ Erosive with some secondary ulcerative stomatitis occurs in bovine viral diarrhea (mucosal disease), bovine malignant catarrh, Rinderpest. and rarely in bluetongue. Nondescript lesions varying from erosions to ulcers occur late stages of many of the previously mentioned diseases when secondary bacteria have invaded lesion. Secondary infection with fungi, especially *Monilia spp.*
- ❖ **(chemical agents) Irritant substances** such as chloral hydrate in excessive concentrations, counterirritants applied to skin and licked by the animal as iodine ointment, Irritant substances administered by mistake; including acids, alkaline and phenolic compounds. Manifestation of systemic poisoning cause a combination of focal hemorrhages and necrotic ulcers in mouth in case of mercuric poisoning, phenothiazine adverse reaction (ulceration) in horses and lesions associated with uremia syndrome in horses too



Pathogenesis and Clinical Signs:

- ♥ The lesions of stomatitis are produced by the causative agents:
 - ❖ being applied directly to the mucosa.
 - ❖ gaining entrance to it by way of minor abrasions.



✚ by localization in the mucosa from a viremia. inflammatory steps are beginning to cause stomatitis. the stomatitis is designated as primary. is usually described as secondary because of the common occurrence of similar lesions in other organs or on other parts of the body, and the presence of a systemic disease.

❖ **The clinical signs** of stomatitis are caused by the inflammation or erosion of the mucosa and the signs vary in severity with the degree of inflammation

✚ characterized by **partial or complete loss of appetite, painful mastication and profuse salivation. It is commonly an accompaniment of systemic disease.**

✚ **Enlargement of local lymph nodes** may also occur if bacteria invade the lesions.

✚ **Swelling of the face** is observed only in cases where a cellulitis.

✚ **Catarrhal stomatitis** is manifested by a diffuse inflammation of the buccal mucosa and is commonly the result of direct injury by chemical or physical agents.

✚ **Mycotic stomatitis** is characterized by a heavy, white deposit with little obvious inflammation or damage to the mucosa.

✚ **Clinical Pathology:**

♥ Material collected from lesions of stomatitis should be examined for the presence of pathogenic bacteria and fungi.

♥ Transmission experiments may be undertaken with sterile swabs or scrapings specially in the disease is thought to be caused by a viral agent.

✚ **Necropsy Findings:**

Oral lesions are easily observed, but complete necropsy examinations should be performed on all fatally affected animals to determine whether the oral lesions are primary or are local manifestations of a systemic disease.

✚ **Diagnosis:**

♥ Careful clinical and necropsy examinations are necessary to define the type and extent of the lesions if any attempt diagnosis is to be made. diagnosis of stomatitis is most important because of the occurrence of oral lesions in a number of highly infectious and non-infectious diseases.

♥ **The diagnosis of any disease should be:**

♥ **depend on case history** should be taken directly, inspection of abnormal manifestation that appear on diseased animal

♥ **complet clinical examination**, special laboratory exam if needed, **necropsy finding**



- ♥ make differential diagnosis between similar diseases to reach to confirm diagnosis of disease.



Treatment:

- ♥ Affected animals should be isolated and feed and watered from separate utensils if an infectious agent is suspected. (**Isolation**) .
- ♥ Specific treatments are described under the headings of the individual disease in the next. (**Specific treatment**) .
- ♥ (**Nonspecific treatment**) includes frequent application of a mild antiseptic such as a 2% solution of copper sulfate, 2% suspension of borax, or 1% suspension of a sulfonamide in glycerin and gentian violet solution.
- ♥ (**Topical treatment**) Indolent ulcers require more vigorous treatment and respond well to curettage or cauterization with a silver nitrate stick or tincture of iodine in low concentration. (**Topical treatment**).
- ♥ In stomatitis caused by trauma, the teeth might need attention. (**Local treatment**) In all cases, soft, appetizing food should be offered and feeding by stomach tube or intravenous energy supply may be used in severe prolonged cases.
- ♥ (**supportive treatment**) If the disease is infectious, care should be exercised to ensure that it is not transmitted by the hands or dosing implements.

Pharyngeal Obstruction

Obstruction of the pharynx is accompanied by respiratory distress, coughing, and difficult swallowing.



Etiology

- ♥ Foreign bodies or tissue swellings are the usual causes.
- ♥ Foreign bodies include bones, corn cobs, and pieces of wire. Although horses are considered discriminating eaters in comparison to cattle, they will occasionally pick up pieces of metal while eating.
- ♥ Tissue Swellings in cattle
 - ✍ Retropharyngeal lymphadenopathy or abscessation caused by tuberculosis, actinobacillosis and bovine viral leucosis.
 - ✍ Fibrous or mucoid polyps are usually pedunculated because of traction during swallowing and can cause intermittent obstruction of air and food passage.
- ♥ Tissue Swellings In horse



- ❖ Retropharyngeal lymph node hyperplasia and lymphoid granuloma as part of pharyngeal lymphoid hyperplasia.
- ❖ Retropharyngeal abscess and cellulitis.
- ❖ Retropharyngeal lymphadenitis caused by strangles.
- ❖ Pharyngeal cysts in the sub epiglottis area of the pharynx, probably of thyroglossal duct origin, and fibroma; also similar cysts on the soft palate.
- ❖ Dermoid cysts and goitrous thyroids.

Pathogenesis

Reduction in diameter of the pharyngeal lumen interferes with swallowing and respiration lead to respiratory distress, coughing, and difficult swallowing.

Clinical Findings

- ❖ There are difficulty in swallowing and animals can be hungry enough to eat but, when they attempt to swallow, cannot do so and the food is coughed up through the mouth.
- ❖ Drinking is usually managed successfully.
- ❖ There are no dilatation of the esophagus and usually little or no regurgitation or through the nostrils.
- ❖ An obvious sign is a snoring inspiration.
- ❖ The inspiration is prolonged and accompanied by marked abdominal effort.
- ❖ Manual examination of the pharynx can reveal the nature of the lesion, but an examination with endoscope is likely to be much more informative.
- ❖ When the disease runs a long course, emaciation usually follows.
- ❖ Rupture of abscessed lymph nodes can occur when a nasal tube is passed and can result in aspiration pneumonia.
- ❖ In horses with metallic foreign bodies in the oral cavity or pharynx, the clinical findings include purulent nasal discharge, dysphagia, halitosis, changes in phonation, laceration of the tongue and stertorous breathing.

Clinical Pathology

- ✍ A tuberculin test might be advisable in bovine cases in areas where bovine tuberculosis is endemic.
- ✍ Nasal swabs can contain *Streptococcus equi* when there is streptococcal lymphadenitis in horses.

Necropsy Findings

Death occurs rarely and in fatal cases the physical lesion is apparent.



Differential Diagnosis

- ♥ Signs of the primary disease can aid in the diagnosis in **tuberculosis**, **actinobacillosis** and **strangles**.
- ♥ **Pharyngitis** is accompanied by severe pain, systemic signs are common, and there is usually stertorous breathing.
- ♥ It is of particular importance to differentiate between obstruction and **pharyngeal paralysis** when **rabies** occurs in the area.
- ♥ **Esophageal obstruction** is also accompanied by the rejection of ingested food, but there is no respiratory distress with signs of tympany.
- ♥ **Nasal obstruction** is manifested by noisy breathing, but the volume of breath from one or both nostrils is reduced and the respiratory noise is more wheezing than snoring.
- ♥ Radiography is useful for the identification of **metallic foreign bodies**.



Treatment

- ✍ Removal of a foreign body can be accomplished through the mouth.
- ✍ Treatment of actinobacillary lymphadenitis with sodium or potassium iodite is usually successful. and some case reduction in size often occurs in tuberculous enlargement of the glands, but complete recovery is unlikely to occur.
- ✍ Parenteral treatment of strangles abscesses with penicillin can affect a cure.
- ✍ Surgical treatment has been highly successful in cases caused by medial retropharyngeal abscess.

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References:

Constable PD, Hinchcliff KW, Done SH, et al. (2017). Veterinary Medicine: A Textbook of the Diseases of Cattle, Horses, Sheep, Pigs, and Goats. 11th ed. Elsevier, St. Louis, Missouri, USA.