

Diseases of the Buccal Cavity and Associated Organs

DISEASES OF THE MUZZLE

Severe dermatitis with scab formation, development of fissures, and sloughing and gangrene of the skin of the muzzle are common lesions in cattle affected with photosensitive dermatitis, bovine malignant catarrh, bovine virus diarrhea, and rinderpest. In sheep severe lesions of the muzzle are less common but occur in bluetongue and ecthyma.

STOMATITIS

Stomatitis is inflammation of the oral mucosa and includes glossitis (inflammation of the tongue), palatitis (lampas; inflammation of the palate), and gingivitis (inflammation of the mucosa of the gums). Clinically it is 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 can be caused by physical, chemical, or infectious agents, with the last being the largest group of causes. The agents are listed next.

Physical Agents

- Trauma while dosing orally with a balling gun or similar instruments.
- Laceration of the tongue.
- Foreign body injury.
- Malocclusion of teeth.
- Sharp awns or spines on plants.
- Eating frozen feed and drinking hot water are recorded but seem highly improbable.
- Ulcers of the soft palate of horses can be caused by mechanical trauma associated with dorsal displacement of the soft palate.

Chemical Agents

- Irritant drugs, e.g., chloral hydrate, administered in excessive concentrations.
- Counterirritants applied to skin, left unprotected, and licked by the animal, including mercury and cantharides compounds.
- Irritant substances administered by mistake, including acids, alkalis, and phenolic compounds.
- Manifestation of systemic poisoning, e.g., chronic mercury poisoning.

Infectious Agents : Cattle

- Oral necrobacillosis associated with
- *Fusobacterium necrophorum*.
- Actinobacillosis of the bovine tongue
- Ulcerative, granulomatous lesions may occur on the gums in cases of actinomycosis.
- Stomatitis with vesicles occurs in FMD and in vesicular stomatitis (VS).
- Erosive, with some secondary ulcerative, stomatitis occurs in bovine viral diarrhea (mucosal disease), bovine malignant catarrh and rinderpest.
- Oral mucosal necrosis in bovine sweating sickness.

Sheep

- Erosive lesions in bluetongue, rinderpest, and peste de petits ruminants.
- Vesicular lesions rarely in foot and mouth disease (FMD).
- Granulomatous lesions caused by ecthyma are not unusual in the mouth, especially in young lambs.

Horses

- Gingivitis (inflammatory nodules of the lips and gums caused by plant awns).

Pathogenesis

The lesions of stomatitis are produced by the causative agents being applied directly to the mucosa, or gaining entrance to it by way of minor abrasions, or by localization in the mucosa from a viremia.

Clinical Findings

There is partial or complete anorexia and slow, painful mastication. Chewing movements and smacking of the lips are accompanied by salivation, either frothy and in small amounts, or profuse and drooling if the animal does not swallow normally.

The saliva may contain pus or shreds of epithelial tissue. A fetid odour is present on the breath only if bacterial invasion of the lesion has occurred. Enlargement of local lymph nodes may also occur if bacteria invade the lesions. Erosions are shallow, usually discrete, areas of necrosis, which are not readily seen in the early stages. Also, Vesicles are thin-walled swellings 1 to 2 cm in diameter filled with clear serous fluid.

Clinical Pathology

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

Differential Diagnosis

- Particularly in cattle, and to a lesser extent in sheep, the diagnosis of stomatitis is most important because of the occurrence of oral lesions in a number of highly infectious viral diseases. The diseases are listed under aetiology and their differentiation is described under their specific headings elsewhere in this book.
- Careful clinical and necropsy examinations are necessary to define the type and extent of the lesions if any attempt at field diagnosis is to be made.
- In cattle, lymphoma of the ramus of the mandible may spread extensively through the submucosal tissues of the mouth causing marked swelling of the gums, spreading of the teeth, inability to close the mouth, and profuse salivation. There is no discontinuity

or inflammation of the buccal mucosa, but gross enlargement of the cranial lymph nodes is usual.

- The differentiation of causes of hypersalivation must depend on a careful examination of the mouth (the causative gingivitis is often surprisingly moderate in horses) and an awareness of the volume of increased saliva output caused by toxic hyperthermia, e.g., in fescue and ergot poisonings.
- Poisoning by the mycotoxin slaframine also causes hypersalivation.

Treatment

Affected animals should be isolated and fed and watered from separate utensils if an infectious agent is suspected. Specific treatments are described under the headings of the individual diseases. Nonspecific treatment includes frequent application of a mild antiseptic collutory such as a 2% solution of copper sulfate, a 2% suspension of borax, or a 1% suspension of a sulphonamide in glycerin. Indolent ulcers require more vigorous treatment and respond well to curettage or cauterization with a silver nitrate stick or tincture of iodine.

In stomatitis caused by trauma, the teeth might need attention. In all cases, soft, appetizing food should be offered and feeding by stomach tube or intravenous alimentation may be resorted to in severe, prolonged cases. If the disease is infectious, care should be exercised to ensure that it is not transmitted by the hands or dosing implements.

For more details, please read this reference:

Peter *et al.*, (2017). *Veterinary medicine: a textbook of the diseases of cattle, horses, sheep, pigs and goats*. 11th Edition. Pp:1-28 Elsevier publisher.

Or

Radostits *et al.*, (2006). *Veterinary medicine: a textbook of the diseases of cattle, horses, sheep, pigs and goats*. 10th Edition. Elsevier publisher.