

Actinobacillosis

Synonym: wooden tongue

Etiology: *Actinobacillus lignieresii*, a gram-negative rod, is a normal inhabitant of the mouth of many ruminants. In cattle cause wooden tongue, pleuropneumonia in pigs and systemic disease in foals and piglets

Definition: is usually a **sporadic** condition. In cattle, the tongue, and less commonly, the pharyngeal lymph nodes, are involved, whereas in sheep, the soft tissues of the mouth, face, and neck are affected.

Clinical findings: Onset is acute and characterized by ptyalism (salivation), excessive tongue movement, and an inability to eat

- (1) In cattle, the tongue is swollen, hard, and painful on manipulation. The tongue may be enlarged early in the course of the disease, but later it becomes Shrunken and firm.
- (2) Nodules and ulcers may be present. Suppuration occurs and pus is discharged from the affected areas.
- (3) Involvement of the tissues of the esophageal groove can lead to intermittent tympany and enlargement of the retropharyngeal lymph nodes can cause difficulty in swallowing and irregular breathing.
- (4) Starvation may eventually occur because of pain or the inability to ingest and masticate food.

Pathogenesis:

The organism is thought to gain entrance to the soft tissues of the oral cavity through abrasions and penetrating wounds of the mouth and tongue, leading to the development of a granulomatous abscessation. A localized pyogranulomatous response is associated with club colonies containing the bacteria. In addition, spread through the lymphatics to the regional lymph nodes may induce pyogranulomatous lymphadenitis. Lesions of cutaneous actinobacillosis may be found on the head, thorax, flanks and upper limbs

Differential diagnosis

- ✓ Penetrating foreign bodies,
- ✓ Bacterial phlegmon
- ✓ Abscesses
- ✓ Tuberculosis involving the lymph nodes of the head and neck.

Diagnosis

- * Induration of the tongue is characteristic of the disease and there may be a history of grazing rough pasture.
- * Specimens for laboratory examination include pus, biopsy material and tissues from lesions at postmortem.
- * Gram-negative rods are demonstrable in smears from exudates or by culturing.
- * Pyogranulomatous foci containing club colonies may be evident in tissue sections.

Treatment:

It is important to treat the condition quickly, control discharges, and isolate affected animals.

- (1) Potassium iodide is administered orally (6-10 g/day for 1-10 days).
- (2) Sodium chloride is administered intravenously (1g/12 kg as a 10% solution).
Treatment with sodium chloride may be repeated once.
- (3) Potentiated sulphonamides or a combination of penicillin and streptomycin are usually effective.
- (4) Rough feed or pasture which may damage the oral mucosa should be avoided.