

ACTINOMYCOSIS

LUMPY JAW

The Organism

- Actinomyces bovis
 - Gram-positive
 - filaments

Epidemiology

- Normal Inhabitant of the bovine mouth
- Common but sporadic disease from infection through wounds to the buccal mucosa by feed or through dental alveoli
- common in cattle but Occasional cases occur in pigs and horses and rarely in goats.
- infection is occur through wounds to the buccal mucosa caused by sharp pieces of feed or foreign material Infection may also occur through dental alveoli
- more common occurrence of the disease in young cattle when the teeth are erupting

Clinical Signs

- painless, bony swelling which appears on the mandible or maxilla, usually at the level of the central molar teeth
- They usually break through the skin and discharge through one or more openings
- The discharge of pus is small in amount and consists of sticky, honey-like fluid containing minute, hard, yellow-white granules.
- Lesion may spread to the muscles and fascia of the throat.
- Excessive swelling of the maxilla may cause dyspnea.
- Involvement of the local lymph nodes does not occur.
- the esophageal groove region, with spread to the lower esophagus and the anterior wall of the reticulum.

Post Mortem Lesions

- thin, whey-like pus with small, gritty granules is usual
- An extensive fibrous tissue reaction around the lesion is constant
- and there may spread to surrounding soft tissues.
- The presence of 'club' colonies containing the typical, thread-like bacteria is characteristic of the disease

Clinical Diagnosis

- Clinical sign
- Case history
- P.M lesion

Differential Diagnosis

- Abscesses of the cheek muscles and throat region
- Foreign bodies or accumulations of dry feed between the teeth and cheek

Laboratory Diagnosis

- Smears of the discharging pus stained with Gram's stain provide an effective simple method of confirming the diagnosis.
- Gram-positive filaments of the organism are most readily found in the centers of the crushed granules

Treatment

- surgical debridement
- antibacterial therapy, particularly iodides
- given orally at the rate of 10-20 mg/kg body weight daily for about 30 days.

Prevention and Control

- isolation or disposal of animals with discharging lesions is important
- disease does not spread readily unless predisposing environmental factors cause a high incidence of oral lacerations