

# **ACTINOBACILLOSIS**

## **WOODEN TONGUE**

### **The Organism**

- Actinobacillus lignieresii
  - Gram-negative
  - Immotile
  - nonspore-forming
  - oval to rod-shaped

### **Epidemiology**

- Normal inhabitant of alimentary tract
- Infection through abrasion
- Site difference in sheep and cattle reflects differences in risk associated with prehension of food
- Sporadic disease but outbreaks where herd/flock predisposing factors are present
- the disease in Cattle and sheep is usually but rare in horses.

### **Clinical Signs cattle**

- excessive salivation and gentle chewing of the tongue as though a foreign body were present in the mouth Inflammation and abscessation of tongue
- On palpation the tongue is swollen and hard, particularly at the base
- Nodules and ulcers are present on the side of the tongue
- In the later stages when the acute inflammation is replaced by fibrous tissue, the tongue becomes shrunken and immobile and there is considerable interference with prehension
- Lymphadenitis is common and is often independent of lesions in the tongue
- There may be visible and palpable enlargement of the submaxillary and parotid nodes

## **Clinical Signs in sheep**

- Lesions up to 8 cm in diameter occur on the lower jaw, face, and nose, or in the skin folds from the lower jaw to the sternum.
- They may be superficial or deep and usually extend to the cranial or cervical lymph nodes.
- Viscid, yellow green pus containing granules is discharged through a number of small openings.
- Extensive lesions cause the formation of much fibrous tissue which may physically impede prehension or respiration.
- Thickening and scabbiness of the lips may also be observed.
- Involvement of the nasal cavities may cause persistent bilateral nasal discharge.

## **Post Mortem Lesions**

- In sheep, lymphangitis and abscesses containing thick, tenacious, yellow-green pus occur around the local lesion.
- Typical club colonies are visible on staining sections of affected tissue.
- Culture of material from lesions usually detects the presence of *Actinobacillus lignieresii*.

## **Clinical Diagnosis**

- Clinical sign
- Case history
- P.M lesion

## **Laboratory Diagnosis**

- Purulent discharges commonly contain 'sulfur' bodies which are granular in nature and, on microscopic examination, consist of club-like rosettes with a central mass of bacteria.

## **Differential Diagnosis**

- Foreign bodies in the mouth
- Rabies
- Esophageal obstruction
- Tuberculosis
- Cutaneous lymphosarcoma

## **Treatment**

- surgical debridement
- antibacterial therapy, particularly iodides
- given orally at the rate of 10-20 mg/kg body weight daily for about 7-10 days.

## **Prevention and Control**

- quick treatment of affected animals and the prevention of contamination of pasture and feed
- Remove predisposing environmental factors cause a high incidence of oral or skin lacerations