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Popular Article

Lumpy jaw: General overview

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Introduction

Actinomyces are gram-positive, anaerobic non-acid-fast rods, many of which are filamentous or branching bacteria that cause disease primarily in cattle and swine but also occasionally in other animals. Lumpy jaw is a localized, chronic, progressive, granulomatous abscess that most frequently involves the mandible, the maxillae, or other bony tissues in the head

Etiology

Actinomyces is also known as lumpy jaw and it mainly infectious disease of cattle and also affect other animals. Actinomyces bovis is the etiologic agent of lumpy jaw in cattle. It has also been isolated from nodular abscesses in the lungs of cattle and infrequently from infections in sheep, pigs, dogs, and other mammals, including chronic fistulous withers and chronic poll evil in horses. Lumpy jaw is a localized, chronic, progressive, granulomatous abscess that most frequently involves the mandible, the maxillae, or other bony tissues in the head.

Clinical Findings

- ✓ The primary lesion appears as a slow-growing, firm mass that is attached to, or is part of, the mandible.
- ✓ In some cases, ulceration with or without fistulous tracts form, and drainage of purulent exudate may occur.
- ✓ Facial distortion.
- ✓ Loose teeth (making chewing difficult).
- ✓ Dyspnea from swelling into the nasal cavity.



Diagnosis

- The diagnosis can be confirmed by culture of the organism from the lesion, but this requires anaerobic conditions and is frequently negative.
- Cytology is useful because a Gram stain of purulent material will reveal gram-positive, club-shaped rods and filaments (sulfur granules).

Treatment

- ❖ Sodium iodide is the treatment of choice in ruminants.
- ❖ Sodium iodide is the treatment of choice in ruminant actinomycosis. Intravenous sodium iodide (70 mg/kg of a 10%–20% solution) is given once and then repeated several times at 7–10-day intervals.
- ❖ Sodium iodide has been shown to be safe for use in pregnant cows and presents little risk of abortion. Concurrent administration of antimicrobials, including penicillin, florfenicol, or oxytetracycline, is recommended.

Prevention of Actinomycosis

- ✓ Actinomyces bovis is part of the normal oral flora in ruminants, so avoiding of course, stemmy feeds or feeds with plant awns that might damage the mucosal epithelium.

