AN ATYPICAL CASE OF ACTINOBACILLOSIS IN A BULL

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Actinobacillosis is an infectious, chronic, generally non-fatal disease caused by *Actinobacillus lignieresii*. In cattle, it typically involves the tongue and hence is also known as “the Wooden Tongue”. The involvement of other organs is considered to be atypical. The etiologic agent is found normally in the oropharynx and rumen of cattle and sheep. The organism is an opportunistic pathogen and it causes chronic pyogranulomatous lesions of the soft tissues of head and neck regions in cows, buffalo, sheep, goats, and horses. A 2-year old, approximately 600 kg Cross-breed Holstein bull was presented to Shiraz veterinary school clinic, for the treatment of a large, ulcerated and hemorrhagic mass at the left side of neck on jugular furrow. Anamnesis indicated that the condition began three months previously as a small, walnut-size. The swelling gradually enlarged over this period. The mass was surrounded by fibrosis. The animal was alert, no fever and no abnormality in respiratory and heart rate and quality were observed. Rumen contractions quality and number was decreased and animal loss weight in two months. Biopsies of skin lesions were taken and fixed in 10% buffered formalin. Histological sections were stained with haematoxilin and eosin, Grams and Ziehl-Neelsen methods. Histological examination of biopsies revealed the pathological structure of actinobacillus granuloma. In the subcutaneous tissue, the granuloma consisted of confluent smaller granulomas. In each, gram negative bacilli were found in the center and surrounded by a zone of eosinophilic club-shaped structures giving the appearance of rosette. On the periphery there was infiltration of neutrophils, macrophages, epithelioid and giant cells surrounded by lymphocytes, plasma cells and fibroblasts. Although actinobacillosis in cattle is best known as a disease of the tongue, the infection may occur in any of the exposed soft tissues, especially those of the mouth and neck; occasionally it involves the wall of the forestomach and any portion of the skin. In this case, the route of entry of organisms probably had been an abrasion or wound in the skin of the neck. Biopsy is the procedure of choice for differential diagnosis of these conditions. Histological examination and staining of purulent material give reliable information for diagnosis. Definitive diagnosis relies on culture.