SHORT COMMUNICATION

A TYPICAL ACTINOBACILLOSIS IN AN ADULT FRIESIAN COW

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Actinobacillosis due to Actinobacillus lignieresii, has been reported in domestic animals including cattle, sheep, goats, buffalo, horses and dogs (Carmalt et al., 1999; Kennerman et al., 2006; Muhammad et al., 2006; Brown et al., 2007). The causative agent is a gram-negative aerobic rod and a normal inhabitant of the gastrointestinal tract of ruminants (Radostits et al., 2007; Smith, 2009). The most frequent clinical presentation is granulomatous or pyogranulomatous lesion of the tongue or subcutaneous tissues in the head and neck region. A typical manifestation of the disease have been reported affecting other body tissues / organs usually associated from lacerations, dehorning, nose-rings, intravenous injections and lymphadenitis (Aslani, et al., 1995; Holzhauer and Roumen, 2002). Outbreaks of the disease have also been reported (Campbell et al., 1975; Nakazawa and Azuma 1977).

This paper outlines an atypical case of actinobacillosis of soft tissue swelling of the head in a cow without any exudation from the lesion, which is a challenge to confirming the etiological agent and treatment.

An adult Friesian cow had been referred to the Large Animal Clinic, University of Nairobi, Kenya with a history of a longstanding bilateral swelling of the face over a period of two months. The patient had been treated by a private veterinarian with unknown dosages of antibiotics without any success.

On clinical examination the patient had a bilateral swelling of the face (Figure 1) resembling a hippopotamus. The swelling had extended from the ramus of the mandible to the muzzle and upper jaw region. On palpation, the swelling was firm and non-painful. The patient also presented with hypersalivation, increased nasal discharge and slightly swollen sub-mandibular lymph nodes. All vital parameters were within the normal ranges and she had a pregnancy aged 4 months.

Treatment regime involved administration of 300 milliliters of 10% Sodium iodide through the jugular vein three weeks apart, followed with seven days injection of 4g procaine penicillin and dihydrostreptomycin intramuscularly.

The lesion regressed progressively for up to a period of 3 months. Signs of iodism appeared during the course of treatment (Figure 2) and regressed once the treatment was discontinued.

Actinobacillosis in cattle is usually represented by the classical “wooden tongue” syndrome. However, other forms have also been described including the unusual form presenting with wart-like lesions on the dorsum of the tongue (Taghipour Bazargani, et al., 2010). In this case, the soft tissue swelling presenting as a “hippo-head” was firm, non-painful with no discharge. A similar case had been reported previously (Milne et al., 2001). However, in the case reported by Milne et al., 2001 the facial swelling was accompanied by granulomatosus swellings with mucoid discharge unlike in the present case where the swelling was smooth and without discharge. The prolonged nature of the case could not allow for an aspirate to be sampled as it has been shown that it’s difficult to grow the causal agent after a prolonged antibiotic treatment (Fubini and Campbell, 1983). However, a biopsy could be taken but

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was not attempted due to the severity of the lesion and the requirement for deep skin incisions when taking biopsies (Milne et al., 2001). Many treatments have been tried for actinobacillosis including surgical debulking followed by postoperative therapy with intramuscular penicillin/streptomycin and intravenous sodium iodide (Arora et al., 1980), streptomycin/or dihydrostreptomycin (Prescott and Baggot, 1993) and other antimicrobials including tetracycline’s and sulphonamides (Prescott and Baggot, 1993, Radostits et al., 2000; Milne et al., 2001). In the present case sodium iodide was the treatment of choice due to the failure of earlier antibiotics therapy and resulted in success. However, it is important to look out for signs of iodism which signifies an end point to treatment with sodium iodide.

It is therefore important for veterinarians who come across such cases of swollen face to recognize this form of actinobacillosis which is different from the classical “wooden tongue” and to institute treatment with Sodium iodide before
condemning the animals.

References


