TETANUS IN SHEEP OF AN ORGANIZED LIVESTOCK FARM - A CASE REPORT

J. Muralidharan, V. Ramesh, S.Saravanan and V. Ramesh Saravana Kumar

Department of Livestock Production and Management
Veterinary College & Research Institute,Namakkal-.(T.N.)

Tetanus (lockjaw) caused by clostridium tetani is a life threatening disease that affects all domestic animals and humans worldwide. Because of its low frequency of occurrence, this sporadic disease attracts little concern from the sheep industry. It is usually seen in lambs less than six months of age. However, the farm flocks experience a higher incidence because sheep occupy spore seeded pens following docking, castration, tagging, shearing and lambing. Spores of this bacterium can be found in faeces and soil ,producing a powerful toxin in open wounds, which is not destroyed by disinfectants. Treatment of clinical cases is costly, may not be successful and in most instances the animals are often found dead. This paper reports tetanus in an adult sheep from an organized sheep farm maintained along with other livestock species viz, goat, horse and cattle, under hygienic environment.

CASE HISTORY AND CLINICAL OBSERVATIONS

A 5 years old female sheep in an organized sheep farm under semi-intensive management manifested clinical signs like incoordinated walking, panic, stiff muscles, stiff and elevated tail, spasms, rigid and extended legs, mild bloat, inability to eat and drink, dilated nostrils, accelerated respiration and a rise in temperature of 40^{o}C. Further, sudden auditory and tactile stimuli provoked violent muscular spasticity (Kimberling , 1988). On close examination, a scar was found in the left inner thigh region. The animal was mobilized to a dark and quiet environment and Procaine penicillin was administered @20,000 I.U/kg, intra muscularly daily to prevent further growth of the bacilli (Radostits et al.,1994) and also chlorpromazine @100 mg in divided doses was given daily. Supportive therapy with I/V fluids and vitamin supplement was given. Even after the treatment and thorough care the sheep succumbed to the disease which probably is due to uncontrollable muscle spasms of diaphragm and intercostals muscles leading to respiratory failure (Ettinger, et al., 2000).

RESULTS AND DISCUSSION

These symptoms were suggestive of the neurotoxigenic disease, tetanus and were in agreement with Harish et al. (2006). The disease was suspected by the history of presence of wound at the site of scar 7 days back. The presence of wound and soil contaminated with spores were the important risk factors as also observed by Adak et al.(2002). As a supportive diagnosis, the serum magnesium level was found to be within normal range, which ruled out the possibility of hypomagnesemic tetani. The postmortem examination of the sheep revealed the presence of emphysematous lungs as observed by Kimberling (1988) and also congestion of the vital organs (Chandranaik et al., 2009). But, the examination of the healed wound tissue smear revealed the absence of gram positive rods.

Tetanus was observed in this organized sheep farm despite the cleanliness and standard managemental procedures adopted. The injury sustained by the sheep while grazing was unnoticed and the treatment was ineffective as the disease had already been developed. Hence, tetanus should be considered important even in organized farms because of its high fatality rate and the long course of convalescence. The risk of contracting tetanus can be minimized through effective cleanliness and constant monitoring of grazing animals for the presence of any injury. Further, tetanus toxoid should be administered after routine operations like castration, docking, tagging, tatooing and lambing or wound of unknown cause.

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