In this paper, we present the clinical findings of Dermatophilosis in three cross bred Jersey cattle. All the cases occurred in wet (rainy season) season, in adult dairy cows. Matted hair, raised, distinct or confluent scabs and crusted lesions were commonly observed on the skin of sides and udder of the animal. Isolation of *Dermatophilus congolensis* was done by culturing the clinical materials on blood agar. Treatment was attempted with topical application of herbal spray (Topicure) and parental administration of long acting oxytetracyclin for five consecutive days. The affected animals recovered from the skin lesions within one month. The isolation of diseased cattle, proper disposal of crusts / scabs, control of ticks and other ectoparasites may help to reduce the incidence of disease.

**Key words:** Dermatophilosis, *Dermatophilus congolensis*, Jersey cattle, Streptothricosis

Dermatophilosis is a contagious skin infection of livestock caused by a bacterium *Dermatophilus congolensis*. The disease was first reported in Belgian Congo by Van Saceghem in 1915, since then it has been reported worldwide (Zaria, 1993). Dermatophilosis is recognized as a zoonosis as humans can acquire infection by direct contact with the diseased animal (Dean *et al.*, 1961; Hyslop, 1980 and Pal, 1995). In India, Sudhakara Reddy *et al.* (2014) recorded Dermatophilosis disease in cross bred cattle in Andhra Pradesh. The domestic animals include cattle, buffalo, sheep, goat and horses, which are most frequently affected and pig, dog and cats, which are rarely affected. The disease is characterized by acute and chronic, local and progressive and sometimes fatal exudative epidermatitis with serous.
exudation and drying to form characteristic matting of hair and scab formation (Abdullahi, 2001; Loria et al., 2005). The severe outbreaks of disease results in gradual loss of condition, decrease in milk production, reduced working ability in draft animals (Oppong, 1996) and deprived hide values and loss of body condition.

In the mid of North East monsoon (November), one cross bred Jersey cattle maintained at the Instructional Livestock Farm Complex, Veterinary College and Research Institute, Tirunelveli, Tamil Nadu, India developed areas of raised flaking skin on the neck, shoulders (Fig.1) and udder. The lesions ranged from 0.5 to 1.5 centimeters in diameter. The lesions were circumscribed, raised, giving the skin a rough and bumpy appearance. Closer examination revealed tufts of hair matted together by hardened exudates. The tufts were easily removed, leaving a raw base exuding blood. Over the next few days the lesions appeared to spread to other two animals in the farm. At this time the insect bites were considered the cause and steps were taken to decrease the fly population. The animals did not showed any pruritic symptoms and remained clinically normal except for the skin lesions.

Small pieces of material were shaved from the scab with a scalpel and identification procedures for any microorganism were carried out at the Department of Veterinary Microbiology, Veterinary College and Research Institute, Tirunelveli, Tamil Nadu. The flakes of scab were softened in a few drops of distilled water on a microscope slide. A smear was made and stained by Giemsa staining method. It revealed a tram-track-like appearance of the bacterium. In addition to this very few segmenting filaments and coccoid spores in packets were also seen. The materials were inoculated on sheep blood agar and incubated at 37°C for 3 days with 10 per cent CO₂. The materials were inoculated on Sabouraud dextrose agar to rule out fungal infection.

Small, greyish-yellow, mucoid, haemolytic colonies were observed after 48 hours incubation. No growth occured on Sabouraud dextrose agar. Gram-stained smears made from colonies revealed Gram-positive, branching filaments with coccoid forms. The biochemical tests revealed catalase-positive, urease-positive, gelatin-positive and produced acid from glucose, fructose and maltose.

Based on the tram track like appearance by Giemsa staining, colony characters on blood agar, no growth on SDA and by the biochemical test the infection was confirmed as dermatophilosis. The characteristic morphology and other findings observed in present study were highly correlated with findings of (Pal, 1989). For treatment the animals with lesions were segregated from the herd and treated intramuscularly with 30 ml of oxytetracycline (long acting) daily for 5 days. Within 10 days, most of the lesions were either resolving or healed. New cases
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did not develop. Topicure herbal spray was used twice daily on the skin lesions until recovery. Dermatophilosis in cattle has been recorded from many parts of the world including India (Pal, 1989) and Ethiopia (Admasu and Alemu, 2011). Apart from cattle, the disease is also encountered in a wide range of hosts such as buffalo, cat, deer, dog, donkey, giraffe, goat, horse, monkey, pig, rabbit, sheep and zebra (Bridges and Romane, 1961 and Albrecht et al., 1973).

Our observations are in agreement with the findings of Admasu and Alemu (2011) who reported higher prevalence of dermatophilosis in cross-bred, adult cattle during wet season. The damage to the skin predisposes the animals to infection. The treatment is essential to prevent the further spread of disease. As *D. congolensis* infection is zoonotic in nature and to minimize the spread to other livestock in the farm, the affected animals were isolated, the infected materials such as crust/scabs were destructed, the ectoparasites were controlled and maintained very strict sanitary conditions as early described by Pal (2007).

REFERENCES


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