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Case Report

Sarcoptic Mange in A Caprine: A Case Report

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Abstract

The goat is regarded as a poor man's cow. It is an asset to marginal or small-scale farmers. The health of goats is adversely affected by parasites. A two and half-year-old, ram was presented to the IFFCO camp with a complaint of itching, alopecia, and dry lesions in the inner and outer aspect of hind quarters. The skin-scrapping examination revealed the presence of Sarcoptes scabiei. The goat was successfully treated with ivermectin at the dose of 0.2 mg/kg body weight, S/C along with the external application of Takti c(Amitraz) @ 4 ml/litre dilution. Timely diagnosis and prompt treatment are essential for the maintenance of productivity in an animal.

Keywords: Caprine, Goat, Sarcoptic Mange.

Introduction

Goat farming is trending nowadays, among the rural youth of the country. It requires minimum qualification and input but needs dedication and experience. It can easily be adopted by an unemployed youth, a housewife or retired personnel. The prosperity of goatary depends on the health status of the goat. As with most livestock species, goats are also prone to parasitic infections. Ectoparasitic infestation causes distinct economic constraints on goat farming across the world as explained by De and Dey (2010). Amongst the ectoparasites, sarcoptic mange infestation is a highly contagious and widespread disease of animals, incurring significant losses in terms of lack of growth, low weight gain, damage to the skin and hide, morbidity, and mortality stated by Rahbari *et al* (2009). *Sarcoptes scabiei* var *caprae* is a pathogenic mite that burrows deep into the skin, and forms tunnel and small red papules over the skin. The symptoms include pruritus, scratching of the affected part, loss of hair, inflammation, wrinkling, and thickening of the skin, as explained by Paramjit Kaur (2023). Zoonotic Scabies originating from livestock, such as goat is also known as "goat handler's itch". Mahendra and Pratibha (2006) reported a case of scabies in a female patient who was contracted from a she-goat. These zoonotic cases mainly occur in handlers who were likely to be in intimate contact with the infested livestock.

A two-and-a-half-year-old male goat reported in the IFFCO camp, Mawana, Meerut, with a history of dry skin lesions in the inner and outer aspects of hind quarters. The animal's appetite was normal and a general body examination revealed a temperature of 39.8°C, heart rate of 90 beats/min, and respiratory rate having 26 breaths/min. However, on close physical examination of skin lesions, crusty, scaly, and alopectic patches were observed (Fig. 3). A tentative diagnosis of mange was made and deep skin scrapings at the periphery of the lesion were collected until the capillary blood oozed out, which were processed in the Department of Parasitology, for confirmation. The collected skin scrapings were boiled in 10% potassium hydroxide sol. and examined under low magnification of microscope as per Lughano and Dominic (2006). The morphological characters like globose shape; rounded mouth part; the first and second pair of legs projecting; whereas the third and fourth pair of legs within the margin of the body were exhibited (Fig.2). Eggs of mites were also observed in some of the fields examined (Fig.1). Skin scrapping examination confirmed a definitive diagnosis of *Sarcoptes scabiei var caprae* by Soulsby (1982). The goat was prescribed ivermectin at the dose of 0.2 mg/kg body weight, S/C., Inj. Anistamin (Chlorphenramine maleate) @ 5ml SID for 5 days and Tribivet (B1, B6 and B12) @ 10ml, IM SID for 5 days. After one week, the goat owner was advised to repeat the Ivermectin dosage for a better response along with the external application of Taktic (Amitraz) @ 4 ml/litre dilution, once in 5 days for three weeks. As a preventive measure, the goat owner was advised to clean the premises with lime–sulphur dip and to seal all cracks in the floor and walls of sheds with cement or mud. Feedback obtained from the owner revealed marked improvement in the condition of the goat with the disappearance of skin lesions.

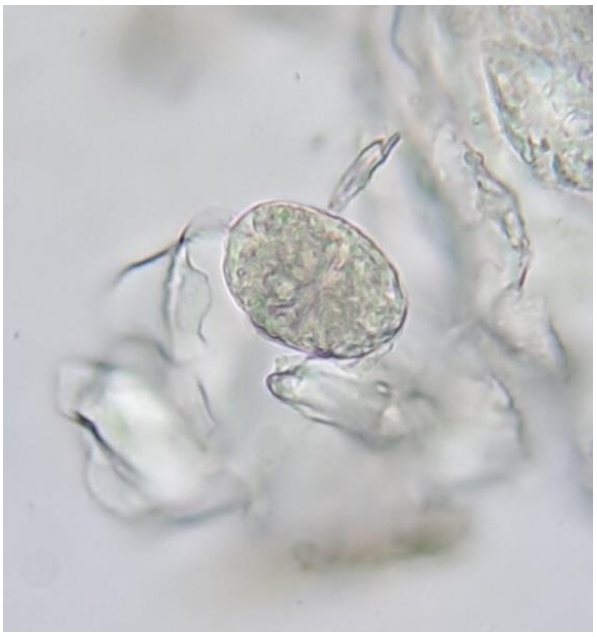

Fig 1: Egg of mite (40X)

Fig 2: *Sarcoptes scabiei* (40X)

Fig3: Pruritic lesions on Hind Quarters

The sarcoptic mange infestation was reported in a goat of about two-and-a-half-year-old, which was in line with the reports of Rohan *et al* (2022), Rashid *et al* (2019), Borah *et al* (2015), Sumathi and Veena (2013) and Nwoha (2011). The disease is more pronounced in stressed, malnourished, immunocompromised, improperly maintained goats and can be rapidly transmitted through direct contact with carrier animals, contaminated fomites, overcrowding, contaminated dips, and common grazing land facilities as given by Terry (2011). Although scabies is a self-limiting disease, it runs a chronic course affecting the health and production of the animal. It is also an important occupational disease associated with its zoonotic implications among livestock workers. It is seldom reportable in many regions therefore, this report is an eye-opener for Indian farmers on proper maintenance, providing balanced rations for their goats, and health education which will enhance their immunity against deadly diseases and increase their productivity.

Contribution by Authors

Equal contribution. All authors declared that 'written informed' consent was obtained from the approved parties for the publication of this article and accompanying images.

Conflict of Interests

There is no conflict of interest.

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