

MIXED INFESTATION OF MANGE MITES IN BEETAL GOATS

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HISTORY

Beetal goats from the Department of Livestock Management, University of Agriculture, Faisalabad were reported to have skin problem of unknown etiology. The goats were having skin lesions around the eye lids, ears, neck, withers, fore and/or rear legs for the last one month. The lesions/symptoms observed included patchy alopecia, intense itching and pruritis as evidenced by frequent scratching of the affected parts by the animals against the manger, wall or other hard objects.

PARASITOLOGICAL EXAMINATION

Deep skin scrapings were collected in Petri dishes from the edges of the suspected active lesions from the skin of the infested goats. The scraped material was transferred in a test tube containing 10 percent KOH solution for 12 hours and then centrifuged at 1500 rpm for five minutes. The supernatant was discarded and the sediment was examined under low power of microscope for the presence of mites. For identification of species, mites were treated with 10 percent acetic acid for half an hour to remove the traces of alkali. They were washed with distilled water and stained with acid Fuschin for about a minute and again washed with distilled water to remove excess of stain. The mites were then passed through 30, 50, 75, 90 percent and absolute ethanol for dehydration by keeping them for 5-7 minutes in each dilution. The species were transferred to cedar wood oil and kept overnight. They were then mounted in Canada balsam and identified (Soulsby, 1982).

DIAGNOSIS AND TREATMENT

On the basis of positive skin scraping examination and identification of the mites, a diagnosis of mange mites infestation was made. Two species of mange mites viz., *Sarcoptes scabiei* and *Psoroptes ovis* were identified (Soulsby, 1982). Single injection of

Ivermectin (Ivomec., MSD) at the dose rate of 0.2 mg/kg body weight was injected subcutaneously to the infested goats.

DISCUSSION

Mange mites, is a common dermatological problem in goats and mostly caused by *Psoroptes ovis*, *Chorioptes ovis* and *Sarcoptes scabiei* (Sweatman, 1958). However, in the present study *Sarcoptes scabiei* and *Psoroptes ovis* were identified. Disease is prevalent in cold weather and spread slowly during summer months and causes significant economic losses due to ill health and morbidity.

Examination of the skin scrapings collected from the infested goats revealed mixed infestation of *Sarcoptes scabiei* and *Psoroptes ovis*. The suckers of *Sarcoptes scabiei* were located on long unjointed stalk on pairs 1st and 2nd, in case of females and on pairs 1st, 2nd and 4th in males (Soulsby, 1982). The mites are somewhat hemispherical in form and have short legs.

Psoroptes ovis had bell shaped suckers on jointed stalk on pairs 1st, 2nd and 4th in case of female and on pairs 1st, 2nd and 3rd in males (Soulsby, 1982). It was oval and dorsal surface of the body was devoid of scales and spines. The lesions observed in the infested goats were patchy alopecia, intense itching and pruritis. The goats were treated with Ivermectin and showed a sign of healing within two weeks post-treatment. Scratching and uneasiness almost subsided. The crusts and scabs disappeared from the infected areas. One month later all the infested goats were completely free from mange mites with normal skin and fresh hair growth. None of the Ivermectin treated goats showed any apparently harmful effects during the course of study. Similar observations had been reported by Sudhan *et al.* (1990). A negligible attention has been given in Pakistan to identify the mange mites infestation and their control in goats. It is the need of the time that due consideration should be given for its identification and ultimately on its control measures.

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