Therapeutic Management of Sarcoptic Mange in a Sheep

B.K.C. Reddy¹*, M. Amaravathi² and D.S. Jyosthna³

¹Veterinary Dispensary, Kadapa – 516 259, ²Department of Veterinary Pathology, College of Veterinary Science, Tirupati, ³Veterinary Dispensary, Chakrayapet, Kadapa, Andhra Pradesh

*Corresponding author E-mail: bharath_vet4@gmail.com

Journal of Livestock Science (ISSN online 2277-6214) 7:297-299
Received on 16/10/2016; Accepted on 9/11/2016

Abstract

A two year old sheep was presented with the history of itching and alopecia over the face and ears. Scaly excoriated lesions with alopecia were observed on the nose and ear flaps. Microscopic examination of skin scraping revealed Sarcoptes scabiei mite infestation. The affected animals were treated with two doses of Ivermectin at dose rate of 200 μg/kg body weight subcutaneously at weekly intervals, along with supportive therapy. The skin scraping examinations on 7th day post treatment revealed absence of mites. Complete improvement was noticed after 15 days of post treatment.

Key words: Sarcoptes scabei; Sheep; Skin scrapings; Ivermectin.
Introduction
Mange is an important skin condition which affects a wide range of animals including sheep (Nwoha, 2011). It is common in sub tropical countries like India especially during rainy and winter season due to low temperature and high humidity. Animals in poor condition are mostly susceptible. Infestation by Sarcoptes scabiei is a rare condition in sheep, but may occur occasionally, leading to severe mange lesions on face, ears and legs (Wall and Shearer, 2001). The tunneling activities of these mites cause intense itching and scratching leading to the development of sores and scabs. The present case reports the infestation of Sarcoptes scabiei in a sheep and its therapeutic management with Ivermectin at field condition.

Case history and Observations
A 2 year old sheep weighing around 20 kgs was brought to the Veterinary dispensary, Chakrpayapeta of Kadapa district Andhra Pradesh with the history of itching and alopecia over the face and ears. Scaly crust lesions with alopecia were observed on the nose (Fig. 1) and ear flaps (Fig. 2). The affected areas were superficially excoriated because of scratching and pruritus. Deep skin scrapings were collected from ears and face lesions over the microscopic slide with liquid paraffin for the examination of mite under the field condition. A cover slip was placed over the sample on the prepared slide which was then viewed under the microscope at low power magnification (10X). Sarcoptes scabiei mites (Fig. 3) were seen which confirmed the diagnosis of Sarcoptic mange.

Treatment and Discussion
Ivermectin injection was administered subcutaneously at the dose rate of 200 μg/kg body weight at weekly intervals for two times along with the supportive therapy of livoferrol syrup. The skin scrapings were examined after 7 days post treatment and they were found negative for sarcoptic mites. Complete elimination of infestation was observed along with improvement of skin texture i.e. disappearance of alopecia, itching, disappearance of scabs and appearance of fresh and shiny skin with hairs was noticed after 15 days of post treatment. The present findings are in agreement with the findings of Akomas et al., (2011). Murthy et al., (2013) also in his study treated all mange infested sheep in a flock with Ivermectin subcutaneously at 200 mcg/kg b.wt at weekly intervals and complete recovery was obtained 10–15th day post treatment in all affected animals.

In sheep, Sarcoptes scabiei affects only sparsely haired parts of the body such as face and ears (Solusby, 1982 and Radostits et al., 2000). The findings in the present case were in correlation with the above reports. Sarcoptic mange leads to itch, dermatitis and intense pruritis due to which animals loose much of the grazing time and hence loose general body condition. Later on, vesicles and papules appear,
skin becomes thickened, covered with pale scabs and wool is lost (Radostits et al., 1994). Ivermectin is derived from avermectins isolated from products generated from *Streptomyces avermitilis*. Subcutaneous injection of the drug improves its bioavailability and subsequently its effectiveness hence the subcutaneous route was applied in the present case.

**References**

Clinical Management of Sarcoptic Mange in Goats. Figure 1. Alopecia and pruritic lesion on paralumbar region. Figure 2: Alopecia and erythematous lesion on hind limbs. Figure 3. Skin scrapings, Sarco mange (Sheep Scab, Ear Mange): Demodectic Mange (Ovine Demodicosis, Caprine Demodicosis): Psorergatic Mange (Itch Mite, Australian Itch). This disease can cause significant economic losses through weight loss and wool damage. Treatments effective against sarcoptic, chorioptic, and psoroptic mange in sheep are expected to be efficacious for psorergatic mange. © 2020 Merck Sharp & Dohme Corp., a subsidiary of Merck & Co., Inc., Kenilworth, NJ, USA. Mange in Cattle. Sarcoptic mange (sometimes called scabies) is by far the most common and important because it is irritant and uncomfortable for the pig, causing it to rub and damage the skin which becomes unsightly. It significantly depresses growth rate and feed efficiency. Mange is widespread across countries with up to 60% of national herds affected.