

Case Report

**SARCOPTIC MANGE INFESTATION IN LARGE WHITE
YORKSHIRE PIGLET- A CASE REPORT**

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Abstract: A 70 days old Large White Yorkshire weaned piglet of piggery unit of Instructional Livestock Farm Complex, Veterinary College and Research Institute, Orathanadu was presented with the history of severe rubbing of the skin against the sides of the pen, hair loss and weakness. The clinical lesion of alopecia, superficial skin fissures and hyperkeratosis were observed around dorsal region, flank region, both hind legs and ears. Skin scraping was collected and processed by 10% KOH digestion method. Skin scrapings revealed eggs and adult mites of *Sarcoptes scabiei*. The affected pig was treated with two doses of Ivermectin @200 µg/kg body weight at fortnightly interval. After treatment, pig completely recovered from sarcoptic mange and the parasitological examination of skin scraping not revealed any eggs or mites. Hence, double dose injection of Ivermectin @ 200 µg/kg body weight at fortnightly interval is the best choice of treatment for sarcoptic mange infestation in pigs.

Keywords: Piglet, Sarcoptic mange, *Sarcoptes scabiei*, Ivermectin.

1. INTRODUCTION

Sarcoptic mange caused by the burrowing mite *Sarcoptes scabiei* var *suis*, is most widespread and important ectoparasite disease in pigs (Garcia *et al.*, 1994; Jensen *et al.*, 2002). Potential detrimental effects of *Sarcoptes scabiei* include reduced growth rates (Davies 1995), sow performance (Arends *et al.*, 1990) and increased piglet mortality (Henken *et al.*, 1988). This infestation has great economic significance in weaned and grower pigs, because it affects growth rate and feed conversion efficiency (Cargil and Dobson 1979). *Sarcoptes scabei* var *suis* is a host specific mite that is spread from pig to pig by direct contact or by vectors. The mite burrows into the skin and lays eggs in tunnels within epidermis of the skin. This causes severe irritation with the pig rubbing its body on any

available surface continually. *Sarcoptes scabiei* affects all age groups, although sows and growing pigs most often exhibit the characteristic clinical signs. The common signs are ear shaking, itching, loss of hair, reddened skin and waxy ears. This form of the disease is mostly seen in young growing pigs of 8-12 weeks of age. As the disease progresses in the individual, chronic lesions will occur. Chronic lesions may occur with thickened skin, hair loss and abrasions, especially behind the ear, around eyes and tail head. The present paper reports the clinical case of Large White Yorkshire weaned piglet infested with *Sarcoptes scabiei* in piggery unit of Instructional Livestock Farm Complex, Veterinary College and Research Institute, Orathanadu.

2. HISTORY AND CLINICAL SIGNS

One Large White Yorkshire weaned piglets (70 days old) presented with history of itching, hair loss and weakness. Clinical lesions of superficial skin fissures, small crusts and loss of hair were observed in dorsal region, flank region, both hind legs and ears (Fig. 1). The pigs were maintained in intensive system of housing. From the affected piglet, skin scraping was collected for parasitological examination.

A characteristic clinical symptom of persistent skin irritation with small red spots on the skin has been suggestive of scabies infestation. The skin scraping was examined by 10% KOH digestion method. Skin scrapings revealed eggs and adult mites and identified as *Sarcoptes scabiei* (Fig. 2) using features described by Kettle (1995) and Bowman (1999), these mites can be distinguished from *Psoroptes* species in that suckers at tip of their legs are carried on short unjointed pedicels (Kumar *et al.*, 2013).

3. TREATMENT AND DISCUSSION

The sarcoptic mange affected weaned piglet was treated with single doses of Ivermectin @ 200 µg/kg body weight, subcutaneously and fortnightly after treatment, clinical examination revealed complete disappearance of encrustation and red pimple. Parasitological examination of skin scraping after treatment, revealed no evidence of adult mites, where as presence of *Sarcoptes* eggs were detected. Similarly, White and Ryan (1987) recorded the Sarcoptic mange was effectively controlled by single injection with Ivermectin. But Radostits *et al.*, (1994), reported that Ivermectin administrated subcutaneously for two days is effectively reducing the population of mites in cattle. Due to presence of *Sarcoptes* eggs after the first treatment, the second dose of Ivermectin was administrated subcutaneously to the affected pigs and parasitological examination revealed no evidence of eggs *Sarcoptes* after fortnightly treatment. In the present study, a severe mange infestation was successfully

managed two doses of Ivermectin in fortnightly interval are more effective as compared to single dose of Ivermectin (Jacobson *et al.*, 1998; Kumar *et al.*, 2013). Single dose of Ivermectin can kill only an adult and immature form of *Sarcoptes scabiei* and an egg are not being killed but in double doses of Ivermectin treatment eggs of sarcoptes were also eliminated. Similarly, Ebbesen and Henriksen (1986), Jacobson *et al.*, (1998) and Smets *et al.*, (1999) reported that double dose injection strategy was most effective method for control of sarcoptic mange infestation in pigs under field condition. Hence, two dose of Ivermectin in a fortnightly interval was more effective method to control a sarcoptic mange infestation in weaned piglets.

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FIGURES



Fig.1 Piglet showing Sarcoptic mange infestation

Fig.2 *Sarcoptes scabiei* adult and eggs in skin scraping examination

