COMPARATIVE EFFICACY OF PUNGAI (Pungamia glabra) AND IVERMECTIN AGAINST MANGE INFESTATION IN PIGS

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ABSTRACT

Ivermectin was found to be most effective followed by benzyl benzoate emulsion and pungan oil against sarcoptes species. It was found to be economical, effective and seven days observation period was sufficient. As ivermectin is easy to administer and less time consuming than topical application of emulsion/ oil of acaricides, the treatment with injectable ivermectin to eliminate mange has a distinct advantage in the control of mange infestation in pigs.

KEY WORDS : Pigs, Mange. Ivermectin, Pungai oil

INTRODUCTION

Pigs are susceptible to many diseases, including parasitic disease. Of those mange is a major parasitic disease of domestic pigs caused by a mite species Sarcoptic scabies var suis which burrows under the skin. Mange is usually more severe in cooler months and the mite spreads rapidly with close contact. It has been shown that Sarcoptic mange reduces the growth rate and feed efficiency of affected pigs, this leads to greater economic loss to the pig farmers. Conventionally, various groups of synthetic acaricides are used for the treatment of mange infestation in pigs. But continuous use of these synthetic drugs had led to development of resistant strain. One of the alternative approaches to control mange is use of a product of plant origin. Hence, a study was conducted to assess the acaricidal property of pungai and compared with a new generation acaricide ivermectin.

MATERIALS AND METHODS

Twenty four Large White Yorkshire weaned piglets (2 months) of either sex, having natural mange infestations from the swine unit, Livestock Farm, Department of Livestock Production and Management, Veterinary College and Research Institute, Namakkal was utilized for this study. The growing piglets affected with mange were randomly divided into three groups of eight in each. In group I pungan oil topical application, in group II benzyl benzoate emulsion was applied on the affected parts daily for 10 days and in group III two injections of ivermectin @ 200 µg / kg were given subcutaneously 7 days apart. The efficacy of drug was assessed on the basis of clinical recovery and absence of mites from the body part.

RESULTS AND DISCUSSION

In pigs of group III, clinical improvement was observed within 5 - 7 days of the first injection of ivermectin but few live mites could be detected in the scrapings on day 7 post treatment. The scrapings examined on 15th day were negative for the mites. The treated animals did not show any untoward effect during the period of observation. Efficacy of ivermectin reported against mange in buffaloes (Gill et al., 1989), sheep (Yousif et al., 1990), camels (Raisinghani et al.,1989) and rabbit (Hafiz et al. 2010, Srivastava et al., 1991; Rao et al.,1992 and Sirohi and Shukla,2000). Treatment with benzyl benzoate emulsion in group II, itching disappeared within 7 - 10 days and

scrapings were found completely negative for live mites on day 15th of the treatment. Treatment with benzyl benzoate emulsion was found effective but daily application of the drug for 10 days after scraping the lesion was time consuming and laborious. In animals of group I which received pungai oil for topical application was not found effective as only partial recovery was observed even after continuous treatment for 10 days as mild itching and presence of mites could be observed in the scrapings on day 15.

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