

THE EFFICACY OF INVERMECTION IN TREATMENT OF SARCOPTIC MANGE IN GOATS

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SUMMARY

The efficacy of ivermectin in treatment of an outbreak of mange Moritanin and local adults caused by *Sarcoptes Scabiei* Var *Carprae* mites was studied.

Ivermectin was given S/C at a dose rate 0.2 mg/kg. body weight twice at an interval of 14 days for 20 infested Moritanin adults and 20 local adults goats. Ivermectin was 100% effective, and all goats were in good condition after treatment.

INTRODUCTION

Mange is generally recognized as a serious and highly contagious disease in all species of animals. In goats the disease caused by *Sarcoptes Scabiei* Var *Carprae*, one of many definitive forms of *S. Scabiei* which is usually considered to have a number of subspecies specific to particular host, but this host-specificity is not complete and transmission from one species to another can occur (11,9). The infested animals were

seriously disturb, stop grazing, show rapid decrease in milk production, lose of condition and vitality. The lesions area characterized by presence of small red papules and general erythema of the skin, the effected area is intensity itchy and frequently excoriated by scratching and biting, lose of hairs, thick brown scals overlying a raw surfaces and thickening and wrinkling of the surround skin soon follow (3). In IRAQ the disease was reported in goats and it was caused by only one species *Sarcoptes Scabiei* named *Sarcoptes Scabiei* Var *Carprae* (10).

Invermectin, it is (Macrocycle- Lactome, produced from *Streptomyces avermitilis*, Merk shop and Dohme Laboratories, Rohway,N.J.,U.S.A) and has been shown effective against ectoparasites as well as endoparasites (4). This is study reported the efficacy of Invermectin in the treatment of an outbreak of mange in Moritanin and Iraqi breeds goats housed together.

MATERIALS AND METHODS

Moritanin and Iraqi breeds goats housed in private farm in Baghdad were used in this study in 1995. 20 goats from each breed proved infested with *Sarcoptes Scabiei* Var *Carprae* were treated, the uninfested goats kept in a separate cage. Complete clinical examination was conducted, skin scraping samples were collected in petri-dishes containing 10% potassium hydroxide solution before and after each treatment according to (6). The animals were treated with Invermectin S/C. at a dose rate 0.2 mg/kg. body weight, the dose was repeated after 14 days.

RESULTS

This study was conducted on a herd of goats include 20 Moritanin and 20 local breed goats with morbidity rate 80%

and the mortality rate was zero. The following clinical signs were observed debility, anorexia, depression, itching, lose of hair, (Fig.1), rub on the walls and corners as a signs of itchiness. Both respiration and heart beats rates were accelerated, there was increase in the intensity of heart beats, auscultation of the lung reveal vesicular sound, lymph nodes were with normal size and mucous membrane were pale. The microscopical examination of skin scraping reveals the presence of sarcoptic mites before treatment as described by (6). The clinical observations after treatment showed improvement of animals condition, there was improvement in the appetite and increase of the body weight. Skin scrapings taken after the first dose of treatment showed few mites, while after the second dose of treatment skin scraping showed absence of mites. The skin lesions were returned to its normal state.

DISCUSSION

Mange in Moritanin and Iraqi breed goats was studied, the clinical finding of the disease encountered in this outbreak were characterized by the presence of small red papules, generalized erythema, itching, excoriated skin, high morbidity rate 80% and low mortality, all of which was highly suggestive for the disease and agreed with (3). The laboratory examination and morphology of the etiological agent of the disease was similar to those previously reported by (6,10). Ivermectin was applied for the treatment of internal and external parasites by (4) and was given S/C. by (7) for sheep and cattle, while the standardized dose for animals was reported by (1). In this outbreak Ivermectin was used for the treatment of the disease and given S/C. at a dose rate 0.2 mg/kg body weight. it supported by (9) for the treatment of sarcoptic mange in goats in Sudan. Microscopical examination of skin scraping after

dose showed few mites. The second dose of ivermectin was given after two weeks at the same dose rate as mentioned before, after that microscopical examination of skin scraping, proved absence of mites from the examined samples and the clinical signs appeared improvement of the animal.

This study reported the efficacy of ivermectin for the treatment of mange in goats, and it was agreed with (4),5,8,12,9 and 2). The final diagnosis was based isolation and identification of the mites and efficacy of Ivermectin in the treatment of animals.



Fig. I illustrate the wrinkling of the skin before treatment.

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كفاءة عقار الافرمكتين في علاج الجرب الساركوتيك في الماعز

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الخلاصة

درست كفاءة عقار الافرمكتين في علاج الجرب الساركوتيك في الماعز المحلي والماتاني والذي تسبب حلم من نوع (ساركوتيس سكاياي فاركابارا) .
الافرمكتين اعطى حقن تحت الجلد بجرعة ٠,٢ نلغرام لكل كيلوغرام من وزن الجسم لعشرين ماعز محلي وعشرين ماعز موريتاني مصابة بالجرب أعيد العلاج بعد ١٤ يوم بنفس الجرعة السابقة.
ظهرت النتائج بأن تأثير عقار الافرمكتين كان بنسبة ١٠٠% بعد العلاج بهذه المادة.