SUMMARY

DEĞER TB. Comperative efficacy of topical eprinomectin and permethrin for treatment of sarcoptic mange in dogs.

In the present study the aim was to evaluate comperative efficacy of topically applied eprinomectin and permethrin for treatment of naturally occuring sarcoptic mange in dogs. For this purpose, a total of 24 dogs of various breeds, age and of both sexes were enrolled. Diagnosis of naturally occuring sarcoptic mange in dogs were made by identifing skin scrapings. In an attempt to make differantial diagnosis the present cases were detected be negative against Leishmaniosis, Dirofilariosis, Anaplasmosis, Ehrlichiosis and Lyme diseases. Punch biopsy samples were taken from some of the selected cases for histopathological examination. Complete blood counts and serum biochemical analysis (ALT, AST, urea, creatinine, total protein) were performed before and after therapy applications in all cases.

For whole duration of the study all cases were subjected to scoring among relevant significant clinical signs of scabies such as erythema, Puriritus, alopecia, hyperpigmentation and crusting. In terms of aforementioned clinical signs all cases enrolled in the I. and II. treatment groups were subjected to clinical scoring form 0 to 3 depending on the severity of the lesions on day 0, 7, 14, 21, 42 and 70^{th}. In cases involved in gorup III were subjected to scoring on day 0 and 70.

The cases were enrolled in 3 different groups, and in I. group (n=9) received 0,5 mg/kg eprinomectin (5mg/ml) topically once a week, for a total of 4 weeks, II. group (n=8) received permethrin at a dosage of 20mg/kg (100mg/ml) topicallly once a week, for a total of 4 weeks. Dogs in III. group (n=7) did not receive any treatment and were left as control.

All the scoring results as statistically calculated on day 0 and 70 revealed eprinomectin as the most effective group for evaluating clinical recovery ($p<0.05$). When all groups were evaluated inside itself apart from erythema score, eprinomectin and permethrin groups were statistically lowered all other median scores ($p<0,05$) on day 70. Median eythema score lowered statistically significantly solely in eprinomectin group inside itself at the end of therapy ($p<0,01$). Even no significant changes were detected in permethrin and control groups ($p>0,05$). When control group was evaluated inside itself no statistically significant changes were detected among median alopecia, erythema, hyperpigmentation and scaling scores ($p<0,05$).

Evaluation of haemogram and serum biochemical results revealed no significant increases and considered to be safely used.

Histopathological examination results were inaccordance within acanthosis and non-specific chronic dermatitis involving perivascular cell infiltrates. Biopsy samples withdrawn before and after therapy revealed inflammation related cells were significantly lessened and recovery were evident on skin.

Parasitological examination of skin scrapings involving 24 cases revealed live sarcoptic mites before therapy. Skin scrapings obtained on day 28 were compatible with mites in 1 cases in group I (1/9, 11%), 6 in group II (6/8, 75%) and 5 in group III (5/7, 71%). Samples obtained on day 70 revealed no mites in group I, whereas mites were identified in 4 cases of group II (4/8, 50%), 6 cases in group III (6/7, 85%).

Evaluation of clinical signs and scoring results suggested complete clinical cure among 9 dogs involved in group I, while permetrin was not effective whilst, cure was evident 2 out of 8 cases.

In conclusion it was suggested that eprinomectin may be a treatment protocole with its comenience as topical application, safely, completely efficacy and rapid resolution for sarcoptic mange in dogs.

Key words: Dog, eprinomectin, permethrin, sarcoptic mange, treatment