

Case Study

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Therapeutic Management of Zoonotic *Sarcoptic scabiei* var *cameli*-A Study of 6 Camels

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ABSTRACT

Keywords

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Six camels were presented with history of severe itching, pruritis since one month. Deep Skin scrapping processed with 10% KOH revealed *Sarcoptic scabiei* var *cameli*. Ivermectin @ 400µg /kg B.W. subcutaneously once weekly for 7 weeks along with supportive therapy resulted complete recovery within two months without any remission.

Introduction

Sarcoptic mange in one humped-camels (*Camelus dromedaries*) caused by *Sarcoptes scabiei* var *cameli* is considered to be one of the most obstinate and economically important zoonotic and epizootic disease that can be spread among animals via direct physical contact with infested animal and indirectly through fomites (e.g., ropes, blankets and saddlery) especially in tropical and subtropical areas (Singh, 2005; Parsani *et al.*, 2008; Wilson, 2008). The present paper demonstrates the successful therapeutic management of sarcoptic mange in camels.

Case history and diagnosis

Six camels were brought to Teaching Veterinary Clinical Complex, Deesa with a

history of severe itching, pruritis, biting and rubbing against objects. Upon clinical examination, the findings were alopecia, intense pruritis and lesions were scattered throughout the body surface. Deep Skin scrapping processed with 10% KOH revealed *Sarcoptic scabiei* var *cameli* on the basis of their morphological features (Soulsby, 1982). Interestingly, during detailed history taking, owner also reported severe itching along with his family members (8). A close contact with the infested animals was considered as the main source of the disease.

Results and Discussion

The affected camels were treated with Ivermectin (1% W/V Gvomec[®], Geetmet) (@

400 µg/ kg body weight once weekly for 7 weeks along with oral multivitamin and mineral supplements (Agrimin forte[®], Virbac) @ 50 g P/O SID for a period of 7 weeks. The results were in accordance with Singh *et al.*, (2000) and Fowler (2010).

Whereas, the animal owner was advised to take specific acaricidal treatment so that the disease cannot be spread further (Fig. 1). Feeding of vitamin and mineral supplements was done as per the report given by Fassi-

Fehri (1987) who stated that malnutrition and nutritional deficiency (vitamin A deficiency) favoured development of sarcoptic mange. Results of Haematological attributes showed decreased haemoglobin, RBC and Packed cell volume simulating the finding of Parmar *et al.*, (2005) and increased in total leucocytic count as per the findings of Gorak Mal *et al.*, (2006) (Table 1). Post treatment haematological values were within the normal range as per the findings of Basudah, (2007) and Schalm *et al.*, (1975).

Fig.1 showing a) animal with sarcoptic mange b) *Sarcoptic scabei* var *cameli* in 40 X magnification c) Affected animal owner

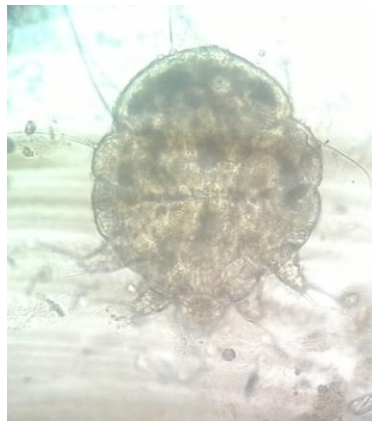


Table.1 Mean hematological attributes

Parameters	Pre treatment	After recovery
WBC ($10^3/\mu\text{L}$)	25.2 ± 2.7	18.2 ± 2.4
RBC ($10^6/\mu\text{L}$)	4.34 ± 0.97	5.74 ± 0.81
Hb (g/dL)	6.10 ± 0.36	9.21 ± 0.22
PCV (%)	18.78 ± 2.85	23.2 ± 2.12
MCV (fL)	47.92 ± 4.1	47.12 ± 2.3
MCH (pg)	17.15 ± 1.23	16.55 ± 1.12
MCHC (g/dL)	44.15 ± 0.08	44.67 ± 1.02
PLT ($10^3/\mu\text{L}$)	200.5 ± 2.12	195.0 ± 2.00

Clinical improvement was observed in all the camels after two weeks of treatment with falling of scabs and subsequent appearance of fresh shiny hair within 2 months was in the same line with Reis offerman (1985), Makkar *et al.*, (1991), Parmar and Veer Singh (2005).

This proves that 1.0% W/V Subcutaneous injection of Ivermectin along with supportive vitamin and mineral therapy was 100% efficient to cure sarcotic mange in dromedary camels.

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