VETERINARY SCIENCE RESEARCH JOURNAL
Volume 2 Issue 1 & 2 (April & October, 2011) Page : 19-21

Received : June, 2011; *Accepted :* September, 2011

Research Paper

Study of skin infections caused by commercial cattle feed in crossbreed cows

GANESH HEGDE

Correspondence to :
GANESH HEGDE
Veterinary Dispensary,
Salkani, Sirsi,UTTARA KANNADA
(KARNATAKA) INDIA
Email: g.hegdevet@gmail.com

ABSTRACT

The study was undertaken to find out remedy for commercial cattle feed induced skin infections in cross breed cows which reduce the production performance and quality of milk. By withdrawing the currently used commercial cattle feed and replacing it with the feed from another source, supplementing with good quality mineral mixture, applying a mixture of zink oxide and sulphur to the affected part and in severe cases, parentral antibiotics with liver tonics cured this skin condition.

Hegde. Ganesh (2011). Study of skin infections caused by commercial cattle feed in crossbreed cows, *Vet. Sci. Res. J.,* **2** (1 & 2) : 19-21.

Key words : Skin infections, Commercial cattle feed, Cross breed cows

INTRODUCTION

Skin infections were repeatedly observed in field conditions among the crossbreed cattle which were fed on commercial cattle feed. The documentation of this condition and remedial measures undertaken are placed on record. ek bat bata de apko agar chalo ho gaye na phir bhagte

RESEARCH METHODOLOGY

A total of fifty crossbreed cows which were showing of skin infections were studied over a period of one year from April 2010 to March 2011 in the Veterinary Dispensary , salkani in Uttara Kannada district of Karnataka State. The syptoms were characterized by parakeratosis, hyperkeratosis, ulcerations, alopecia, itching and myiasis of skin. The severity ranged from mild affections to severe dermatosis where animals were restless with continuous licking of the affected part. The above skin lesions were observed mainly in the lower part of both fore legs and hind legs, around the hooves, interdigital space, on the teat surface and udder.

RESULTS AND DISCUSSION

It was observed that all the affected animals were feed exclusively on the commercially available cattle feed produced either by private or public sector manufacturers. The cows were given paddy straw as a sole source of dry fodder and green fodder of nonspecific quality was given in less quantity.

To formulate treatment regimen, the affected animals were divided into five groups of 10 cows each. Different treatment schedules were tested in the experimental group for a period of 15 days.

Group I : The currently fed commercial cattle feed was completely withdrawn from the affected cows (n=10) and replaced with the cattle feed of the similar quality from a different manufacturer.

Group II : The currently fed commercial cattle feed was completely withdrawn from the affected cows (n=10) and replaced with the cattle feed of the similar quality from a different manufacturer. A mixture of 100ml neem oil, 10g zink oxide and 10g sulphur powder was smeared on the affected part twice a day for 10 days.

Group III : The currently fed commercial cattle feed was completely withdrawn from the affected cows (n=10) and replaced with the cattle feed of the similar quality from a different manufacturer. A mixture of 100 ml neem oil, 10g zink oxide and 10 g sulphur powder was smeared on the affected part twice a day for 10 days. An antibiotic preparation of long acting oxytetracycline containing

oxytetracycline in 2 pyrrolidine system 200 mg/ml was injected intramuscularly at the rate of 10 mg/kg body weight. A preparation containing B complex vitamins with liver extract was injected at the rate of 10 ml intramuscularly per animal twice at an internal of 3 days .

Group IV : To this group of 10 animals, the currently fed commercial cattle feed was continued and a mixture of 100 ml neem oil, 10g zink oxide and 10g sulphur powder was smeared on the affected part twice a day for 10 days.

Group V : To this group of 10 animals, the currently fed commercial cattle feed was continued and a mixture of 100ml neem oil, 10g zink oxide and 10g sulphur powder was smeared on the affected part twice a day for 10 days. An antibiotic preparation of long acting oxytetracycline containing oxytetracycline in 2 pyrrolidine system 200 mg/ml was injected intramuscularly at the rate of 10 mg/kg body weight. A preparation containing B complex vitamins with liver extract was injected at the rate of 10 ml intramuscularly per animal twice at an internal of 3 days.

RESULTS AND DISCUSSION

The clinical signs observed and the animals were cured to different degrees by the tried treatment regimens and the results are as follows.

Group I : Three animals out of ten (30%) were showing complete recovery by withdrawing the currently used commercial feed during the observation period of 15 days.

Group II : The symptoms of dermatosis disappeared in five out of ten (50%) cows by the end of 15 days after withdrawing the commercial feed and application of neem oil, zink oxide and sulphur mixture.

Group III: The signs of dermatosis completely disappeared in all 10 animals (100%) by 15 days of complete feed withdrawal, application of the mixture of neem oil, zink oxide and sulphur and injection of long acting oxytetracycline and liver extract.

Group IV: Only one animal (10%) showed recovery from the clinical signs after applying neem oil, zink oxide and sulphur mixture and continuing to feed currently used commercially cattle feed.

Group V : Only two animals (20%) showed disappearance of clinical symptoms by applying neem oil, zink oxide and sulphur mixture, antibiotic and liver extract injections and using the same cattle feed.

Yeruham *et al*. (1999) observed dermatitis of similar symptoms in heifers fed excessively with carbohydrates. But no excessive carbohydrates were given to the animals in this study.

The symptoms of dermatosis and the observation that condition occurred when commercial cattle feed was given are in accordance to the observations made by Sridhar and Narayana, (2006).

Sridhar (2009) cured similar condition with a commercial preparation containing zink, sulphur and cobolt orally.

The microscopic and culture and sensitivity tests of skin scrapings from the affected skins revealed no bacteria, mite or fungus. Commercial feeds contained no urea and fungal toxins (Shridhar and Narayana, 2006). When the currently used cattle feed was continued for feeding, the response to the treatment schedules was poor (10-20%).

Kadhane *et al.* (1992) noticed similar symptoms in buffalo calves fed with *Parthenium hysterophorus* plant. But this plant was not fed to the affected animals in this study.

Shridhar and Narayana (2006) cured this condition completely by feed withdrawal, replacing it with own feed mixture, application of zinc oxide and sulphur on the affected parts of skin and oral supplementation of sulphur mixture. In this study, complete recovery from the clinical symptoms was achieved by complete feed withdrawal, and replacing with the feed of a different manufacturer, application of a mixture containing zinc oxide and sulphur and injecting long acting oxytetracycline treatment with liver extract twice at three days interval.

The dermatosis problem affecting the crossbreed cattle was studied and the various treatment schedules were discussed. Typical lesions appeared in cows fed with commercial feeds manufactured by different companies. Withdrawal of the currently used cattle feed and replacing it with the other source, neem oil, zinc oxide and sulphur application on the affected part and injecting long acting tetracycline and liver extract with B complex resulted in complete recovery from the clinical signs.

LITERATURE CITED

Henschel, R. Agathos, M. and Breit, R. (1999). Acute irritant contact dermatitis from propionic acid used in animal feed preservation. *Contact Dermatitis*, **40**(6):328-331.

Kadhane, D.L., Jandge,C.R., Sadekar,R.D. and Mehra,U.K. (1998). Effect of *Parthenium hysterophorus* feeding on Buffalo calves. *J. Soil Crops*, **2**:69-72.

Sridhar,N.B.(2009). Efficacy of synoderm in treating commercial cattle feed induced dermatitis. *Indian J. Animal Res.,* **43**(4):43-47.

Sridhar, N.B. and Narayana, K .(2006). Feed induced dermatosis in cattle and buffaloes of Karnataka. *Indian Vet.J.*, **83**(1):44-46.

Yeruham, I., Avidar, Y., Barqai,U., Adin, G., Frank, D., Perl, S. and Bogin, E. (1999). *J. South African Veterinary Assoc.,* **70**(4):167-171.

*** ***** ***