

Short communication

EFFECT OF LEVAMISOLE ADMINISTRATION ON THE INCIDENCE OF BOVINE MASTITIS

Levamisole is reported to be an immunomodulating drug which enhances resistance to infections (Brunner and Muscoplat, 1980). Ovadia *et al.* (1978) suggested that levamisole is of value for the control of bovine mastitis. The effect of levamisole administration on the incidence of mastitis is reported.

One hundred and forty pregnant cross-bred dairy cows aged four to eight years were selected from the University Livestock Farm and divided into two groups at random. Levamisole (Helmonil injection) was administered intramuscularly @ 5 mg/kg body weight at weekly intervals during the last month of pregnancy for four consecutive weeks to one group, keeping the other as control. These animals were observed for the occurrence of mastitis for a period of two months from the date of calving.

Eleven cows developed mastitis during the observation period in the experimental group and nine cows in the control group. There was no significant difference in total leucocyte count, differential leucocyte count, total protein and globulin levels between the two groups to suggest any immunomodulating effect.

The results suggested that levamisole administration during dry period might not serve as an effective control measure for the control of mastitis in cows. These findings are in agreement with Ziv *et al.* (1981) and Buddle and Pulford (1985). The immunomodulating property of the drug may be evident only when the functions of the immune system are decreased as suggested by Lowe (1980).

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P.C. Alex, K.M. Alikutty and Stephen Mathew
Department of Clinical Medicine
College of Veterinary and Animal Sciences,
Mannuthy

References

- Brunner, C.J. and Muscoplat, C.C. (1980). Immunomodulatory effects of levamisole. *J. Amer. Vet. Med. Assoc.* **176**: 1159-1162
- Buddle, B.M. and Pulford, H.D. (1985). Evaluation of levamisole for use in control of bovine staphylococcus aureus mastitis. *Newzeland Vet. J.* **33**: 177-180
- Lowe, R.J. (1980). Levamisole as an immunostimulant. *Vet. Rec.* **106**: 390
- Ovadia, H., Flesh, J. and Nelken, D. (1978). Prevention of bovine mastitis by treatment with levamisole. *Israel J. Med. Sci.* **14**: 394-396
- Zivv, G., Storper, M. and Saran, A. (1981). The effect of levamisole therapy during the dry period on clinical and subclinical bovine mastitis. *Refuah Veterinarith* **38**: 108-113. *Vet. Bull.* (1983) Abst. No. 988