

Evaluation the Efficacy of Mixed Herbal Essential Oils as a Treatment Option for Clinical Endometritis in Dairy Cattle

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Abstract

The endometritis form of uterine infection is considered as a common reproductive disorder deleterious to the reproductive performance of dairy herds. A wide variety of treatments with controversial results have been reported for endometritis, including local or systemic administration of antibiotics or disinfectants as well as hormone application. These treatments have side effects on endometrium, and antibiotic residues are found in milk following intrauterine and systemic antibiotic therapies. The aim of this study is to evaluate the possible effects of the mixed essential oil of *Satureja bachtiarica* Bunge, *Artemisia Aucheri* Boiss and *Syzygium aromaticum* (L.) Merr. & L.M.Perry on treatment of clinical endometritis in dairy cattle. One hundred and twenty cows with clinical endometritis were selected and randomly assigned to one of the following three groups: the HM group received mixed herbal essential oils, the OX group received 2.5 g oxytetracycline HCl, and the EX group received 1 g of ceftiofur sodium, all by intrauterine injection. The cleaning and first service conception rate was significantly higher in HM group than the EX, whereas the mean open days were lower in HM than the EX group. The number of service per conception was also significantly lower in HM group than OX and EX groups. In general, reproductive performance after herbal treatment was quite comparable to chemical antibiotic therapy and even better in some other reproductive indices. The mixed essential oils treatment represents an effective potential alternative to postpartum therapy for cows with clinical endometritis.

Key words: Dairy cattle, Endometritis, *Satureja*, *Artemisia*, *Syzygium*

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