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Clinical cure of endometritis in cattle - comparison of an antibiotic versus an herbal product

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Conclusions

- Overall, 64% of a total of 136 finally evaluable clinical endometritis cases were considered as clinically cured 14±2 days after the first treatment, 85% after a total of 2 treatments. No statistical difference between both treatment groups was detected regarding clinical cure (p = 0.923); endometritis severity at enrolment was not significantly affecting the overall healing probability (p = 0.665)
- The clinical cure of dairy cows' endometritis after the intrauterine application of the herbal product Eucacomp® was non-inferior to the intrauterine application of the standard antibiotic cephapirin under field conditions

Results

Overall cure rates after a maximum of 2 treatments	**EUC (n = 61)**	**CEPH (n = 75)**	**overall**
Clinically cured	82% (n = 50)	88% (n = 66)	85% (n = 116)
Grade 1* (n = 74)	n = 33	n = 32	n = 65
Grade 2 (n= 49)	n = 13	n = 29	n = 42
Grade 3 (n = 13)	n = 4	n = 5	n = 9

endometritis classification of the initial diagnosis referring to Sheldon et al., 2006 [1]
EUC = EucaComp® , CEPH = Metricure®

- Neg. influence of retained placenta (p=0.035) on clinical cure: without fever (OR=0.14), with fever (OR=0.08)
- Influence of dystocia (p=0.048): farmer's help with neg. influence (OR=0.59) veterinarians help with pos. effect (OR=10.7)
- Pos. influence of intrauterine application of iodine capsules (p=0.017; OR=5.66)

Introduction

Clinical endometritis in cattle has a strong detrimental effect on fertility [1]. Routine therapy is based on the parenteral administration of prostaglandins or on intrauterine administration of antibiotics [2].

EucaComp® is a pure herbal veterinary medical product based on 4 plants and registered for the intrauterine treatment of endometritis representing an alternative to the use of antibiotics

Eucalyptus globulus Labill.

Calendula officinalis L.

Melissa officinalis L.

Origanum majorana L.

Materials and methods

- Gynecological examination was done between 21-35 days after calving in n=816 cows from 31 farms
- Inclusion of cases diagnosed with clinical endometritis grade I-III, using a scoring system for vaginal discharge [1]
- Group assignment at random (ear tag)
- Treatment with a single dose of EucaComp® (EUC, SaluVet GmbH, Bad Waldsee, Germany)
  or Metricure® (CEPH, cefapirin benzathin 500 mg, MSD Animal Health GmBH, Luzern, Switzerland)
- Re-evaluation 14±2 days later; if necessary, the same therapy was repeated
- Cows still suffering from clinical endometritis after 2 treatments were considered "uncured"
- Logistic regression models were used to analyse cure after 1st and 2nd treatment with fixed effects for group, severity at enrolment, lactation number, season, retained fetal membranes, calving process, other therapies

Hypothesis

The phytotherapeutic preparation EUC leads to non-inferior clinical cure rates compared with CEPH (at least after two consecutive treatments at an interval of two weeks)

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References

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