

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



V. Menoud<sup>1</sup>, M. Holinger<sup>2</sup>, M. Walkenhorst<sup>2</sup>, **G. Hirsbrunner<sup>3</sup>**

<sup>1</sup> Clinique du Vieux-Château/JuraVet, Delémont, Switzerland

<sup>2</sup> Department of Livestock Sciences, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland

<sup>3</sup> Clinic for Ruminants, Vetsuisse Faculty, University of Bern, Switzerland, e-mail: [gaby.hirsbrunner@vetsuisse.unibe.ch](mailto:gaby.hirsbrunner@vetsuisse.unibe.ch)

## 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 cephalosporin 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



## 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 1<sup>st</sup> and 2<sup>nd</sup> 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)

## Acknowledgements

The authors thank SaluVet GmbH, Bad Waldsee, Germany for funding this project.

## References

- [1] Sheldon IM et al: Defining postpartum uterine disease in cattle. Theriogenology 2006; 65: 1516-1530.  
[2] Hehenberger EM et al: Diagnosis and therapy of retained fetal membranes, puerperal metritis and clinical endometritis in cattle. Schweiz. Archiv f. Tierheilk. 2015; 157: 503-512.