

## EARLY VERSUS LATE POSTPARTUM TREATMENT OF CLINICAL ENDOMETRITIS IN DAIRY COWS USING A COMBINATION OF SYSTEMIC ADMINISTRATIONS OF CEFTIOFUR WITH PROSTAGLANDIN F2A

*Julia Jeremejeva*<sup>1,\*</sup>, *Toomas Orro*<sup>1</sup>, *Andres Waldmann*<sup>2</sup>, *Marina Aunapuu*<sup>3,4</sup>, *Ivar Blank*<sup>3</sup>, *Andres Arend*<sup>4</sup>, *Kalle Kask*<sup>1</sup>

<sup>1</sup>*Department of Clinical Veterinary Medicine;* <sup>2</sup>*Department of Reproductive Biology,*

<sup>3</sup>*Department of Basic Veterinary Sciences and Population Medicine*

*Institute of Veterinary Medicine and Animal Sciences, Estonian University of Life Sciences  
Tartu, 51014, Estonia*

<sup>4</sup>*Department of Anatomy, University of Tartu, Ravila 19, Tartu, 50411, Estonia*

*\*Corresponding author: Julia Jeremejeva*

*Tel.: +372 53332242; E-mail: tjulia@emu.ee*

*Postal address: Fr. Kreutzwaldi 62, Tartu 51014, Estonia*

**Abstract.** The aim of this study was to test treatment of clinical endometritis in the early postpartum (PP; group A; 5-10 day after calving) and late PP (group B; 30-35 day PP) using systemic administrations of ceftiofur with two injections of PGF2 $\alpha$  at intervals of 8 h. Examination of vaginal discharge, determination of plasma progesterone (P<sub>4</sub>), measurement of acute phase proteins (APP), histological examination of uterine biopsies and fertility parameter data were used for evaluation of treatment success. No significant differences in improvement of vaginal discharge, the start of ovarian activity, the length of the first luteal phase measured by P<sub>4</sub>, or in the time-trends of APP and presence of subclinical endometritis on days 43-45 PP, based on histological examination, were detected. Fertility parameters of group A were better than in group B. However, this difference was not significant, possibly because of the small experimental groups.

**Keywords:** Early postpartum, endometritis, late postpartum, PGF2 $\alpha$ , treatment