Endometritis Affected Fertility but not Dry Matter Intake or Milk Yield in Dairy Cows

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Introduction

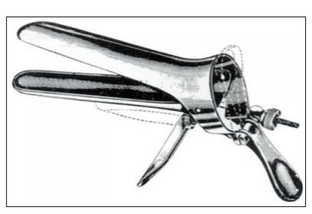
- Postpartum uterine diseases (metritis or endometritis) are considered important factors that affect longevity and profitability of dairy herds.
- It is well documented that metritis (uterine infections that happen < 21 d after calving) is associated with poor reproductive performance, reduced dry matter intake (DMI) and milk yield (MY).
- However the relationship between endometritis (uterine infections that happen > 21 d after calving) and DMI or MY has not been investigated.

Objective

- To evaluate the effect of different categories of endometritis on reproductive performance, DMI and MY.

Methodology

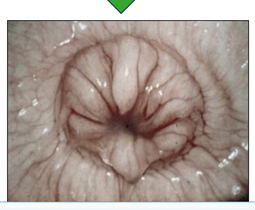
- 126 lactating Holstein cows were examined for endometritis on 25 ± 1 d postpartum (dpp) using 3 different methods.



Vaginoscopy

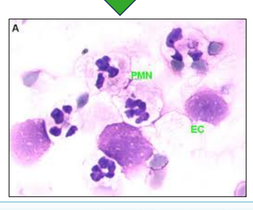
Ultrasonography

Uterine cytology



Purulent Discharge

Uterine Fluid

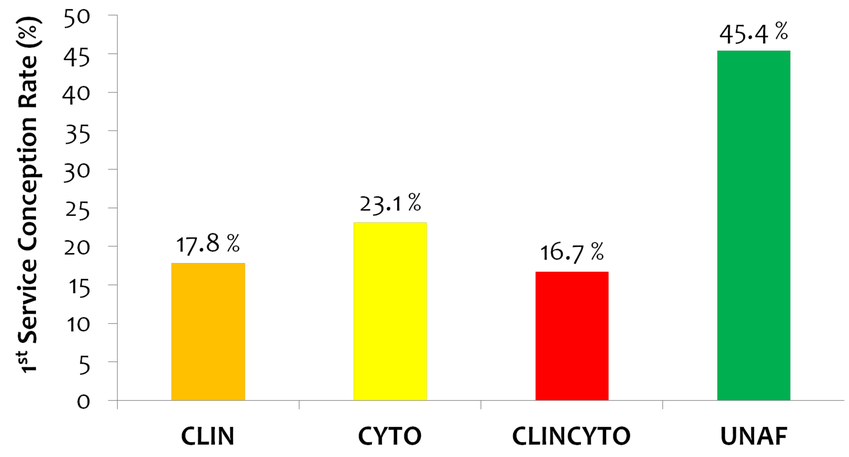


PMN – White blood cells - markers of inflammation/infection

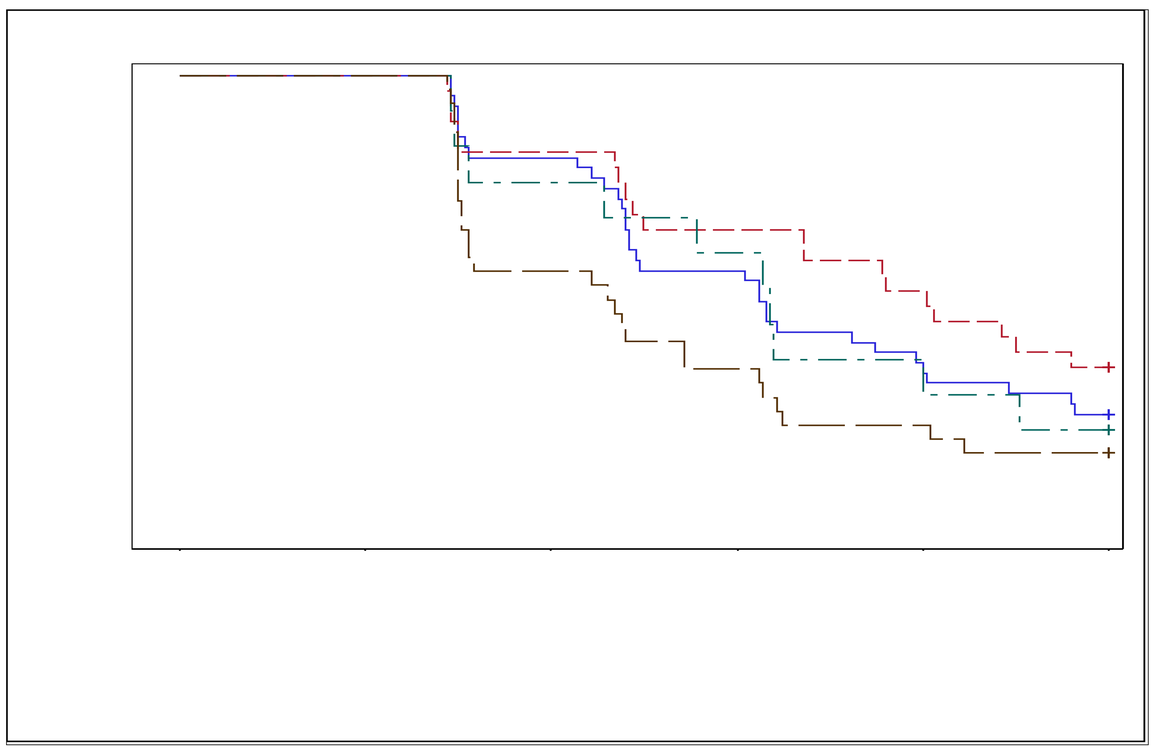
Table 1. Categories and definitions of endometritis

Categories	Definition
Clinical (CLIN, n=45)	Mucopurulent discharge and /or presence of uterine fluid
Cytological (CYTO, n=15)	No discharge or uterine fluid but ≥8% PMN
Clinical + cytological (CLINCYTO, n=30)	Discharge and/or uterine fluid and ≥8% of PMN
Unaffected (UNAF, n=36)	None of the above pathological conditions

Results



- Figure 1: Effect of categories of endometritis on first service conception rate.



- Figure 2: Effect of categories of endometritis on pregnancy rate up to 250 dpp. The proportion of non-pregnant cows at 250 dpp was higher in CLINCYTO (37%) than in UNAF (18%) groups.

- The overall DMI (24.0±0.5 kg) and MY (35.0±0.8 kg) up to 35 dpp were not affected by categories of endometritis.

Take home message

- Fertility at first AI was significantly affected in cows with all categories of endometritis.
- Fertility remained significantly lower up to 250 dpp in cows with CLINCYTO endometritis.
- Dry matter intake or milk yield was not significantly affected in cows with endometritis.

Acknowledgements

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