

Endometritis Affected Fertility But Not Dry Matter Intake or Milk Yield in Dairy Cows

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Postpartum uterine diseases (metritis or endometritis) are considered important factors that affect longevity and profitability of dairy herds. It is well documented that metritis [(i.e uterine infection < 21 d postpartum (DPP)] is associated with poor reproductive performance, and reduced dry matter intake (DMI) and milk yield. However, the relationship between endometritis (i.e uterine infection at or after 21 DPP) and DMI or milk yield has not been examined. Thus, the objectives of this study were to evaluate the effect of different categories of endometritis on reproductive performance, DMI and milk yield. Lactating Holstein cows (n=126) were examined for endometritis on 25 ± 1 DPP by vaginoscopy, transrectal ultrasonography and endometrial cytology to determine the presence and type of vaginal discharge, uterine fluid, and proportion of polymorphonuclear cells (PMN), respectively. Cows that had mucopurulent vaginal discharge (discharge) and/or presence of uterine fluid, no discharge or uterine fluid but ≥8% PMN, and discharge and/or uterine fluid and ≥8% of PMN were defined as having Clinical (n=45), Cytological (n=15) and Clinical+Cytological (n=30) endometritis, respectively. Cows that had none of the above pathological conditions were classified as Healthy (n=36). Cows that had Clinical and Clinical+Cytological endometritis were 4 times (1/0.25) less likely to (P=0.06) conceive to the first service compared to Healthy cows. Cows with Clinical and Clinical+Cytological endometritis had decreased likelihood (P<0.05 and 0.01, respectively) of pregnancy at 150 DPP compared to Healthy cows (17.8, 16.7 and 45.5%, respectively). Interestingly, cows in the Clinical+Cytological endometritis category were less likely to (P=0.01) be pregnant even at 250 DPP compared to Healthy cows (51.1 vs 64.9%). The DMI and milk yield up to 5 wk after calving were not affected by categories of endometritis.

Take Home Message: Categories of endometritis as determined at 25 DPP did not affect dry matter intake or milk yield. However, cows diagnosed with the combined (Clinical+Cytological) category of endometritis had an additive negative impact on first service conception rate and subsequent services.

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