Cervicitis in postpartum dairy cows
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Endometritis has a high prevalence in postpartum cows and its impact on subsequent reproductive performance is significant. In contrast to endometritis, cervicitis has not been intensively studied even though a negative effect on reproductive performance has been found. The hypothesis of the present study was that the inflammation and/or infection of the cervix and the endometrium are correlated. The first objective was to determine the prevalence of cervicitis in postpartum dairy cows and to determine the association between the vaginal appearance and the cytological assessment of the cervix. The second objective was to evaluate if there was a correlation between inflammation of the cervix and the endometrium. All clinical procedures met the national guidelines for the care and use of laboratory animals and were approved by the institutional animal care committee of the University of Montreal.

Three different commercial dairy herds, located in Quebec, were recruited based on convenience. All cows (n = 133) were examined by transrectal palpation and by vaginoscopy between 28 and 42 DIM. The vaginal content and cervical os were visually assessed for the presence of discharge and color respectively. Cytobrush samples from the cervix and the uterus as indicators of inflammation were taken. Data obtained were subjected to descriptive statistics and regression using general linear procedures of statistical software. Cervicitis was found in 32% and 24% of the cows on visual and on cytological evaluation (>5% neutrophils), respectively. Cytological endometritis was diagnosed with 19% of postpartum cows. There was no significant association between the appearance of the cervix and the presence of neutrophils on cervical cytology. However, a positive association (p<0.0001) was found between the percentage of neutrophils on cytology of the cervix and the endometrium. Our results suggest that visual and cytological assessment of the cervix could be a simple, but important tool to evaluate reproductive health in postpartum dairy cows.

Keywords: Dairy cows, postpartum, cervicitis