Abstract


Within the uterus of transition cows, pathogenic bacteria are rarely present. However, during the immediate postpartum period, the uterus of these cows shows an increase in pathogens. Over time, these pathogens will be cleared from the reproductive tract. Yet, there are some instances where pathogen infection persists leading to chronic endometritis. Prior research shows that during stressful situations such as parturition, the expression of the neutrophil L-selectin is greatly reduced, leading to compromised neutrophil migration (Burton and Erskine., 2003). Previous studies show that OmniGen-AF increases L-selectin expression in neutrophils, thus improving their migration. The aim of this study was to investigate the effect of OmniGen-AF on uterine pathogenic populations within transition cows. Samples were isolated using Zymo-Miniprep Kit and total DNA was quantified. Three endometritis-related species and total bacteria were quantified by real-time PCR: *Escherichia coli*, *Fusobacterium necrophorum*, and *Trueperella pyogenes*. Total bacterial DNA decreased significantly between day 10 and day 38 postpartum ($P < 0.01$), however the abundance of endometritis-specific bacteria showed no significant changes ($P > 0.06$). We did not find evidence that OmniGen-AF influenced total bacterial populations or presence of key pathogenic strains in the uterus of postpartum cows.