

Changes in standing behaviour identify cows at risk for digital and interdigital dermatitis

K. L. Proudfoot¹, M. A. G. von Keyserlingk¹, D. M. Veira², D. M. Weary¹

¹Animal Welfare Program, University of British Columbia, 2357 Main Mall, Vancouver, BC Canada, V6T 1Z6; ²Agriculture and Agri-Food Canada, Agassiz, BC, Canada

Dairy cows housed in free stall barns experience a high incidence of claw disease in the first few months after calving. Early identification of cows most at risk for claw disease could help reduce this incidence. The aim of this study was to determine if standing behaviour during transition could identify cows at risk for digital and interdigital dermatitis after calving. The number of standing bouts and the total time spent standing per day were measured from 2 wks before calving until 2 wks after calving for 48 Holstein dairy cows. Digital and interdigital dermatitis were scored as present or not present at 2 wks before calving and 3 and 7 wks after calving. Nine cows that had no visible signs of digital or interdigital dermatitis before calving showed clinical signs of disease at either 3 or 7 wks after calving. We compared these cows with a sample matched for parity that remained healthy throughout the study using ANOVA. Before calving, cows that developed dermatitis spent more time standing (811.38 ± 30.25 versus 686.52 ± 30.25 min/d; $P=0.02$) and had fewer standing bouts (9.00 ± 0.74 versus 11.73 ± 0.74 number/d; $P=0.01$) than cows that remained healthy. After calving, cows that developed dermatitis spent more time standing (909.60 ± 25.70 versus 787.10 ± 25.70 min/d $P=0.004$) but showed no difference in standing bouts compared to healthy cows. These results indicate that longer standing times and fewer standing bouts before calving and longer standing times after calving are important risk factors in the development of digital and interdigital dermatitis.