Metritic Heifers Search for a Safe Place

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Isolation from the group is a common behavioural response to illness in social animals. Modern free stall barns do not provide a refuge area for sick cows, but animals feeling ill may be able to use the stall itself to get away from herd mates. First lactation cows are smaller, and thus better able to stand with all four feet in a stall and benefit from its protection. The objective of this study was to determine if these cows increase standing in the stall when they develop metritis.

Metritis diagnosis was based on vaginal discharge, scored on every third day between calving and 21 days in milk (DIM). Primiparous cows identified as metritic (M, n=8) were paired with healthy individuals (H, n=8), based on bodyweight and days in milk. Cameras installed above the experimental pen allowed for 24h continuous observation. Time spent standing with either the two front feet or all four feet in the stall was measured using 5-min scan sampling of the video recordings. The observation period included the three days before diagnosis in the metritic animals and the corresponding DIM for healthy pairs.

Metritic heifers spent more time standing with all four feet in the stall (107 ± 21.5 min/d) than healthy heifers (33 ± 18.3 min/d). Healthy heifers spent more time 'perching' with only their front two feet in the stall (H: 297 ± 30.8 min/d; M: 188 ± 35.7 min/d). We suggest that cows feel malaise with the onset of metritis and spend more time standing with four feet in the stall because they perceive this to be a more protective environment.

Implications: First lactation cows spend more time standing with all four feet in the lying stalls in the days before clinical diagnosis of disease, likely in search of a more protective environment.