been measured in routine joint evaluation. The purpose of the present study is to determine the physical, cellular and biochemical parameters of the synovial fluid of distal sesamoid bursa (DSB) and distal interphalangeal joint (DIPJ) of clinically normal Holstein cattle and comparison of measured parameters with obtained samples from those spaces of freshly normal cadaver feet collected from slaughter house. The mucinous precipitate quality was graded as good in predominant cadaver and alive samples. Viscosity of main specimens in both groups was in good grade. Predominant percents of both groups were transparent and remaining had transparent yellow color. Erythrocytes were not observed in both synovial fluid groups. Total nucleated cell counts (TNCC) of synovial fluid were 59.45±4.25 and 55.93±3.89 cells/µl (mean±SD) in DSB and DIPJ respectively in cadaver specimens. Also, TNCC in alive specimens were 69.80±4.74 and 67.6±6.25 cells/µl respectively in synovial fluids of DSB and DIPJ. So, there was no significant difference between specimens of DSB and DIPJ in each group and also there is no significant difference between TNCC of synovial fluids of mentioned joints in each group. Lymphocytes were the predominant cell type in cadaver and alive groups. The present results reveal that there is no significant increase or decrease in enzyme activities of synovial fluids of both groups. There were no significant differences between mean concentrations of total protein in slaughter and alive specimens. The glucose concentration of synovial fluids of both groups had no significant differences.

supplemental dietary Biotin on the severity of heel horn erosion. Trial was designed for a 4 month (June to September 2009) in a dairy located in Varamin in the vicinity of Tehran consisted of 75 first lactating heifers as well as 210 milking Holstein Cows. Historically, the herd had a prevalence (≥ 45%) of clearly visible heel horn erosion in cows in their 2nd or later lactation. Seventy and five heifers assigned to a Biotin-supplemented (20 mg/head/d) and the 210 older cows on an alternating basis. Supplemented and control groups were housed in separate but identical free-stall barn with the same management. In every 7 day interval each cow was restrained in a trimming chute and the sole surface of each digit was examined for heel horn erosion. Scores for lesions were considered as: 0) Heel horn grossly normal, 1) Mild pitting or loss of integrity of heel horn, 2) Sever pitting of heel horn or shallow oblique V-shaped grooves, 3) Deep oblique V-shaped grooves, 4) Sever coalescing oblique grooves with heel horn nearly or completely absent. Chi-square fisher exact test was used to compare composit scores between groups. Heel horn erosion composite score were significantly different between Biotin-supplemented and control groups (1.01 ± 0.20 and 3.10 ± 0.15 respectively). Results suggest that supplemental dietary Biotin have prevention effect on the severity of lesions and the prevalence of heel horn erosion on herd levels.

The effect of lameness on husbandry records in very large scale dairy farms of Khorasan Razavi province-Iran

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Heel horn erosion "Slurry Heel" is a progressive destruction of heel horn commencing on the axial surfaces of the bulbs of the heels. It is one of the most common claw lesions and has been found that at least 50% of a herd can be affected with erosion of the heel. B-Vitamin, Biotin is one of a number of nutrients that are required for epidermal differentiation, production of keratin, and production of intracellular cementing substance within the claw wall. Administration of supplemental dietary Biotin has been shown to have a beneficial effect on hoof health and also has been suggested as a method of prevent lameness in cattle. This study was aimed to evaluate the effects of