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## INFLUENCE OF PARTURITION ON BIOCHEMICAL ANALYSIS OF MILK WHEY FROM HOLSTEIN COWS IN THE COLOSTRAL PERIOD

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The aim of this study was to compare the influence of lactation number on aspartate-aminotransferase,  $\gamma$ -glutamyltransferase, alkaline phosphatase, total protein, albumin, total and ionized calcium, inorganic phosphorus, magnesium, iron, sodium and potassium concentrations of milk whey from Holstein cows in the colostrum period. Colostrum samples, 15 from primiparous Holstein cows and 15 from multiparous Holstein cows were taken immediately after parturition, and every 24 hours until 7 days of lactation. The enzymatic activities, total protein, albumin, and mineral levels on milk whey were determined by spectrophotometry. The number of lactations influenced the activity of aspartate aminotransferase, as well as concentrations of total protein, albumin and iron, which were higher in multiparous cows. Lactation number also influenced the activity of  $\gamma$ -glutamyltransferase, and magnesium concentration, which were higher in primiparous cows. The number of lactations did not influence alkaline phosphatase activity and the levels of total and ionized calcium, inorganic phosphorus, sodium and potassium. Total and ionized calcium and inorganic phosphorus concentrations remained stable throughout the experimental period, while the other parameters evaluated were higher in first milking of colostrum and then decreased gradually in the subsequent moments. These results suggest that the quality of colostrum must be assessed, especially in primiparous cows, since it may produce colostrum with a smaller content of proteins; however, the number of lactations does not influence the mineral content of colostrum since important minerals, such as calcium and phosphorus are in similar concentrations in the colostrum of primiparous and multiparous cows.

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