

عنوان مقاله:

تغییرات فراسنجه های الکتروکاردیوگرافیک در ارتباط با الکترولیت های سرمی و آنزیم های قلبی در خلال دوره های مختلف تولیدی گاوهای شیری هلشتاین پرتولید

محل انتشار:

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خلاصه مقاله:

BACKGROUND: Dairy cows undergo physiological changes during pregnancy and lactation and cardiovascular system may alter during these periods. **OBJECTIVES:** Understanding the physiological effects of production periods of dairy cows on heart electrical activities can aid to better monitoring the cardiovascular system in these animals. **METHODS:** Five multiparous Holstein dairy cows were studied from their early lactation to close-up dry periods. Electrocardiogram recordings and blood samplings were performed from each cow at their different productive states. Sera were separated and the concentrations of sodium, potassium, chloride, calcium, magnesium, phosphorus, aspartate aminotransferase, alanine transaminase and lactate dehydrogenase were evaluated in all specimens. **RESULTS:** There were no significant changing patterns in P, Q, S and T amplitude from early lactation to close-up dry periods ($P > 0.05$); However, the R amplitude was significantly increased from early to late lactation and then decreased to close-up dry period, subsequently ($P < 0.05$). P wave had the longest and Q wave had the shortest durations during different productive states. There were no significant changing patterns in PR, QT and ST intervals from early lactation to close-up dry periods ($P > 0.05$) but RR interval in dry periods was significantly longer than lactating ones. Serum concentrations of calcium, phosphorus, sodium, chloride, potassium, aspartate aminotransferase, alanine transaminase and lactate dehydrogenase were decreased significantly from lactating cows to non-lactating ones ($P < 0.05$). **CONCLUSIONS:** The heart electrical activities of dairy cows at each production period were different from another one. The differences among serum electrolyte levels may affect the electrocardiographic findings at each production period which may alter the production and conduction of cardiac electrical impulses. Furthermore, the cardiac activities in different production periods could have a significant impact on the levels of circulating cardiac enzymes.

کلمات کلیدی:

cardiac enzymes, Dairy cows, Electrolytes, electrocardiography, physiological periods

لینک ثابت مقاله در پایگاه سیویلیکا:

