THE INFLUENCE OF HELIUM-NEON ACULASER TO CREATINE KINASE AND ASPARTATE AMINOTRANSFERASE BLOOD SERUM ENZYMES IN THOROUGHBRED HORSE BEFORE AND AFTER EXERCISE

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ABSTRACT

The aim of this study was to know the effect of helium-neon laser acupuncture to creatine kinase (CK) and aspartate aminotransferase (AST) blood serum enzymes in thoroughbred horse before and after exercise. The measured parameter was CK and AST blood serum enzyme levels. Eight male thoroughbred horses were used as group 1 and group 2. P0 as control was horses are exercised during five days, without helium-neon laser puncture treatment before. P1 was horses are exercised during five days, with helium-neon laser puncture treatments before. All horses’s blood before and after exercise were collected through jugular vein used vacuum tube then analyzed. CK blood serums were assayed by NAC activated method used cobas c 502® analyzer with wave length 546/340 nm. AST blood serums were assayed by IFCC method used Dimension RXLMax® analyzer with wave length 340 and 700 nm. Experimental design was used completely randomized design with two treatments and eight replications. The data was performed using SPSS 21 for Windows with t-paired test. The result of the study was helium-neon laser puncture decrease CK and AST blood serum enzymes level after exercise. T-paired test showed significantly difference between control and treatment group (p<0.05).

Key words : laser, acupuncture, creatine kinase, aspartate aminotransferase, thoroughbred, exercise