

Correlation between acid-base balance and the immunometabolism after a Crosscombat session in MMA Athletes

Luis Carlos Oliveira

Federal University of Mato Grosso – UFMT, Brazil

Abstract

To identify the correlation between physiological parameters induced by the crosscombat™ after 72 hours of rest in sixteen MMA athletes underwent a 40-min session of the method. A negative correlation between bicarbonate and chloride affects the anion gap in post-exercise time, and the inverse behavior of neutrophils and lymphocytes is similar between monocytes and eosinophils. A positive correlation between monocytes, eosinophils, and bicarbonate and a negative correlation between neutrophils and other strains of leukocytes as Lymphocytes, Monocytes, and Eosinophils. The negative correlation between neutrophils and lymphocytes and between the same neutrophils and other leukocyte lineages seems to show neutrophils as the most acutely affected cells in this type of exercise, different from what was previously seen for a six-minute jiu-jitsu match. Because both models use fighting movements and are of high intensity, the execution time changed the leukocyte behavior in response to stress. The negative correlation between bicarbonate and chloride, may have influenced the differential leukocyte count, given the positive correlation between the HCO₃ and, the subfamilies of monocytes and eosinophils. Furthermore, these subfamilies showed a negative correlation with neutrophils and that the anion gap alters the activity and concentration of other biochemical parameters in the plasma modulating immunometabolism.

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Biography

The Luis Carlos Oliveira works in Federal University of Mato Grosso – UFMT, Brazil

