CHANGES IN INFORMATION PROCESSING DURING EXERCISE

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In order to study changes in information processing during exercise, we analyzed event-related brain potential (ERP) P3 and reaction time (RT). Ten healthy subjects (mean age 20.6 yrs) participated in a visual oddball task (targets O, 20%) during control (CP), exercise (EP) and recovery periods (RP). Subjects were instructed to press a button as quickly and accurately as possible when they detected target stimuli. P3 latencies and amplitudes and RTs decreased significantly during EP in comparison to those in CP and RP. Error response increased during exercise. The decrease in P3 latency during EP might be caused by the process of recognition and/or evaluation. These result may show the fact, during exercise, subjects responds before evaluation and they shortened the time to evaluate after response. Further examination of ERP P3 is required to clarify the information processing during exercise.

Presented at the 6th International Evoked Potential Symposium, Okazaki, Japan

Yagi, Y., Shimono, M., Estes, K.M., & Coburn, K.L. (1998). Changes in information processing during exercise. In: Hashimoto, I., & Kakigi, R. (eds) *Recent Advances in Human Neurophysiology* (International Congress Series 1162). Amsterdam: Elsevier, pp. 704-707.

Article Published in: Recent Advances in Human Neurophysiology