

Abstract

Title: Influence of Young Barley and Chlorella Pyrenoidosa on Regeneration in Bodybuilding and Fitness Athletes

Target: The aim of this work is to determine whether the use of Chlorella Pyrenoidosa (CHP) and Young Barley (MJ) products have an effect on muscle regeneration in strength athletes in the fields of bodybuilding and fitness, specifically addressing the level of the creatine kinase (CK) enzyme after strength training. Additionally, it is to find out whether the use of CHP and JM affects the quality of life of athletes.

Methods: This diploma thesis is a qualitative correlation study. The theoretical part of the work was processed on the basis of information from books and electronic sources in Czech and English. For the practical part, 5 probands from the bodybuilding and fitness sports sector were purposefully selected. The group underwent blood sampling analyzed with a BECKMAN COULTRE DxC 700 analyzer for CK levels. Data on the impact of Green Food on quality of life were obtained using a record sheet entitled: "Daily Subjective Records". Statistical analysis of the Daily Subjective Record data was performed by paired t-test at the significance level of $\alpha \leq 0.05$ and subsequently graphed.

Results: We found an overall linear reduction in serum CK levels in 3/5 of the probands. The 24 hour increase decreased in 3/5 probands. Therefore, it is not generally possible to confirm from the results that the level of CK is influenced by the use of Chlorella Pyrenoidosa and MJ. The results of the Daily Subjective Records confirmed the effect of Chlorella Pyrenoidosa and Young Barley use, but only in the feeling of fatigue, drinking coffee and the palatability of Green Foods. The hypotheses could not be confirmed. The results could have been significantly affected by the COVID - 19 pandemic.

Keywords: chlorella pyrenoidosa, young barely, regeneration, fitness, bodybuilding, creatine kinase, CK