Comparative Study of Serum Cytokine and Cortisol Levels Before and After Eight Weeks of Regular Exercise on Survived Covid-19

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Abstract

The aim of the present study was to compare the serum levels of cytokine interleukin-6 and cortisol before and after eight weeks of regular exercise on survived Covid-19. The research method was quasi-experimental with pretest-posttest design and control group. The statistical population included all women aged 18-45 years rescued from Corona in Isfahan. Sampling was performed by purposive method. Twenty female volunteers rescued from Corona were randomly selected and divided into two training and control groups. 24 hours before the implementation of the protocol, pre-test training including blood sampling was performed to measure the serum levels of interleukin-6 and cortisol and then the subjects in the experimental group for eight weeks and three sessions per week in the resistance training program with elastic band and web body weight participated at home, after the end of the training period, all pre-test (post-test) measurements were performed again for comparison with pre-test and also within-group comparison. The control group did not participate in any exercise program. Data analysis was performed using analysis of covariance. The results showed that resistance training was effective on serum levels of cortisol and interleukin-6 survivors of corona with a significant level of 0.001. Comparison of serum levels of cortisol and interleukin-6 showed a significant decrease in the exercise group compared to the control group ($P < 0.05$). Exercise using body weight and elastic resistance bands reduces the serum levels of cytokines (interleukin-6) and cortisol in people rescued from the corona and can improve the immune system of people rescued from the corona. Further research is recommended

Keywords: Corona, Interleukin-6, Cortisol, Cytokine, Exercise

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