Abstract

Kang, S.J., Jung, S.L. Effect of 12 weeks aerobic exercise on obesity index, insulin resistance, cardiovascular disease risk factors and exercise capacity in obese adolescent. Exercise Science, 19(3): 277-288, 2010. The purpose of this study was to investigate of 12 weeks aerobic exercise on obesity index, insulin resistance, cardiovascular disease risk factors, and exercise capacity in obese adolescent. The subjects of this study were middle school overweight, and obese students(n=20, BMI ≥85th percentile). The subjects were divided into following exercise group(n=10), and control group(n=10). Exercise group have performed on treadmill walking and running at HRR 50%-80% of exercise intensity for 40 minutes. Exercise treatment consisted of 3 times per week was continued to 12 weeks. The results following: 1) Exercise training significantly improved weight(p<.05), BMI(p<.05), %fat(p<.01), waist circumference(p<.05) in exercise group. 2) Exercise training significantly improved fasting glucose(p<.01), insulin(p<.05), insulin resistance index(p<.01) in exercise group. 3) Exercise training significantly improved free fatty acids(p<.01), triglyceride(p<.01), HDL-cholesterol(p<.01), systolic, and diastolic blood pressure(respectively, p<.01), CRP(p<.01) in exercise group. 4) Exercise training significantly improved VO2max(p<.01), resting HR(p<.01), and heart rate recovery response(respectively, p<.01) in exercise group. In conclusion, aerobic exercise program in obese adolescent appears to be effective for improving obesity, insulin resistance, cardiovascular disease factors, and exercise capacity.

Key words : aerobic exercise, obese adolescent, insulin resistance, cardiovascular disease factors, exercise capacity
참고문헌


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