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Repetitive McKenzie spinal extension exercises on cardiovascular responses in class I obese subjects

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Introduction & Aim: Obese population is dramatically increasing worldwide. There is a strong association between obesity and low back pain. The 1 month prevalence of low back pain ranges from 30% to 40% in the general population. Mckenzie method is commonly used in the diagnosis management of patients with back pain. The objective of the study is to examine the cardiovascular responses of two common exercises namely, extension in lying (EIL) and extension in standing (EIS) used in the McKenzie system with different repetitions among class I obese subjects.

Methods: 50 Class I obese subjects (25 males and 25 females) were randomly selected with in the age range of 20-40 years. Base line measurement of resting heart rate (HR), blood pressure (BP) and rate pressure products (RPP) were taken before and after exercises. Multiple comparisons were done to analyze the significance within groups. One way analysis of variance for repeated measures was used to compare the dependent values obtained at rest and after 10, 15 and 20 repetitions. Independent "t" test was used to determine the significance between two groups.

Results: No significant difference ($p>0.05$) were found in SBP and DBP after 10 repetitions in group 1 and SBP after 10 and 15 repetitions in group 2. There was a significant difference ($p>0.05$) in RPP after 15 and 20 repetitions within and between the groups.

Conclusion: Increase repetitions of spinal extension exercises in prone lying bring more cardiovascular stress when compared to the same performed in the standing position among Class I obese subjects.

Biography

H Bala Jeya Perumal has completed his MPT in Cardio Thoracic from Vinayaka Mission University. He is the principal of pioneer college of physiotherapy for the past 7 years. He has published more than 5 papers in reputed journals. He was also got the award for best teacher 2011 by FPT Tamil Nadu branch.

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