ACOS25-P-008: The Effect of Earlobe Acupuncture on Fitness 12-Minute Running Test for Students of the Faculty of Medicine, Indonesian Defence University

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Physical fitness is important for maintaining physical health, increasing concentration, endurance, and productivity. Students who have a good level of physical fitness are more physically prepared to participate in learning activities that require high concentration and stamina to participate in academic learning activities and non-academic extracurricular activities. Increasing evidence shows that acupuncture has a good effect on physical exercise endurance. This study assessed the effectiveness of auricle acupuncture compared to sham auricle acupuncture on physical exercise fitness, especially in semi-military communities. The design of this study was a single randomized controlled clinical trial. The study was conducted at the TNI Hambalang PMPP Field from September to November 2024. There were 2 study groups, the auricle presses needle acupuncture group compared to the sham group. The intervention group was given press needles at the ear points MA-TF1 Shenmen, MA-IC4 Heart and MA-IC4 Sympatetic 30 minutes before starting the running session, using a 0.22 mm x 15 mm press needle. Press needle, pressed for 1 minute at the beginning, removed 15 minutes after running. The sham group received the same treatment with non-needle plaster. Data collection was carried out 2 times, for pretest data and the second treatment as posttest data. Outcome assessments were carried out at 5-, 10-, and 15-minutes post run. Press needle acupuncture therapy resulted in significant improvement in physical fitness ($p < 0.05$) in male VO2max prediction parameters, intensity and HRpeak, as well as decreased systolic, diastolic, and pulse blood pressure at the fifth minute, decreased effort borg score at the fifth and 10th minutes. No significant results were obtained in the leg fatigue score ($p > 0.05$). Press needle acupuncture therapy significantly improved physical fitness ($p < 0.05$) compared to the sham group.

Keywords: Earlobe acupuncture, press needle acupuncture, physical fitness, endurance, sports acupuncture, 12-minute running test.