

INTRODUCTION: Cardiovascular drift is a phenomenon, which appears after 10 – 20 minutes of prolonged moderate – intensity exercise (50 – 75% VO₂max). CVD appears in a neutral or hot environment. It is characterized by a decline in stroke volume and systemic mean arterial pressures and a parallel increase in heart rate. Cardiac output is maintained nearly constant. The theory of CVD shows increase of core temperature and sympathetic nervous system as cause of increase of heart rate.

GOALS: The goal of this thesis was find out the change of heart rate depending on time. Then we found out changes of oral, tympanic, axillary, vaginal and superficial skin temperature. We found out correlation between vaginal temperature and heart rate and then between skin temperature and vaginal temperature.

METHODS: Blood pressure, heart rate, oral, tympanic, axillary, vaginal and superficial skin temperature were measured during 60 minutes of cycling (intensity 55% VO₂max; 1,99 ± 0,14 W/kg). It was measured at 13 women (25,5 ± 1,3 years; 69,1 ± 7,7 kg).

RESULTS and CONCLUSION: There was statistically significant increase of heart rate compared to value from 10. minute. during. There was increase of tympanic temperature compared to value from 10. minute only at the end of exercise. There was significant increase of vaginal and skin temperature compared to value from 10. minute, but statistically insignificant increase of oral and axillary temperature. Correlation between vaginal temperature and heart rate, between skin temperature and vaginal temperature and then between skin temperature and heart rate were statistically significant. Vaginal and skin temperature are usable during exercise, another methods of temperature measurement are not suitable.

Keywords

cardiovascular drift, heart rate, temperature measurement, core temperature, vaginal temperature, superficial skin temperature