Efektivitas Latihan Aerobik Akut terhadap Waktu Fonasi Maksimal pada Penyanyi Paduan Suara = Effectiveness of Acute Aerobic Exercise on Maximum Phonation Time in Choir Singers

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Abstrak

Waktu Fonasi Maksimal (WFM) dapat mengevaluasi kemampuan seseorang dalam mempertahankan fonasi, yang penting untuk penyanyi paduan sura. Latihan aerobik dianggap vital dilakukan pada populasi ini, terutama karena komponen kebugarannya dan telah terbukti meningkatkan WFM pada pasien gagal jantung kronis. Penelitian bertujuan menentukan hubungan antara latihan aerobik akut dan waktu fonasi maksimal (WFM) pada populasi penyanyi paduan suara dewasa sehat sedenter. Studi potong lintang dilakukan pada 27 penyanyi paduan suara dewasa sehat (16 laki-laki, 11 perempuan). Pengukuran WFM menggunakan aplikasi Praat® dilakukan sebelum dan sesudah latihan aerobik 30 menit menggunakan sepeda statis komersil yang disambungkan dengan aplikasi Zwift®.Peningkatan durasi WFM (18.37± 5.34 s to 21.04± 6.66 s, p = 0.008*) ditemukan setelah dilakukan latihan aerobik akut. Korelasi signifikan antara suara alto/sopran dan WFM (0.775**, p = 0.005), antara tekanan darah diastolik dan WFM (75.07± 10.33 mmHg to 79.85± 12.50 mmHg, p = 0.034*), serta denyut nadi dan WFM ditemukan (86.51± 11.64 beats/minute to 108.51± 18.22 beats/minute, p = <0.001*). Terdapat hubungan signifikan antara latihan aerobik akut dan suara alto/sopran dengan WFM pada penyanyi paduan suara sehat sedenter .....Background: Maximum Phonation Time (MPT) can assess an individual’s capability to sustain phonation, which is vital to choir singers. Aerobic exercise is considered important to execute in this population especially for its endurance component, and has proven to increase MPT in chronic heart failure patients. Study aimed to determine association between acute aerobic exercise and maximum phonation time (MPT) in healthy sedentary adult choir singers. Cross-sectional study was conducted with 27 sedentary singers (16 males, 11 females; age range 23-54 years). Measurements of MPT using Praat® were taken before and after 30-minute aerobic exercise using a static cycle connected to Zwift®. Increased MPT duration (18.37± 5.34 s to 21.04± 6.66 s, p = 0.008*) was found after acute aerobic exercise. Significant correlation between alto/soprano voice and MPT (0.775**, p = 0.005), between diastolic blood pressure and MPT (75.07± 10.33 mmHg to 79.85± 12.50 mmHg, p = 0.034*), also heart rate and MPT were found (86.51± 11.64 beats/minute to 108.51± 18.22 beats/minute, p = <0.001*). Significant association found between acute aerobic exercise and alto/soprano voice with MPT in healthy sedentary adult choir singers.