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TAKOTSUBO SURVIVORS - THEY SIT MORE BUT EXERCISE AS GENERAL POPULATION

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OBJECTIVES: Takotsubo is a syndrome very similar to acute myocardial infarction and is often triggered by emotional stress. These patients develop extensive but reversible left ventricular apical akinesia that may lead to lethal complications including malignant arrhythmias, cardiogenic shock, and ventricular rupture, and mortality is similar to acute myocardial infarction. Takotsubo is more common in women, aged >50. Regular physical activity and moderate/high cardiorespiratory fitness are associated with lower stress levels, as well as prevention of cardiac events. Therefore, physical inactivity might be important in takotsubo, but this remains unknown.

METHODS: We studied 61 takotsubo patients (5 men and 56 women), mean age 66 (SD 11) years. The prevalence of abdominal overweight/obesity was 62%, 53% had a BMI>25, and 8% were smokers. We measured low-intensity physical activity (LIPA), moderate-to-vigorous physical activity (MVPA) and time spent sedentary (SED) using tri-axial hip-worn accelerometers (ActiGraph GT3XE+). We also estimated cardiorespiratory fitness by a submaximal cycle test.

RESULTS: Median time for MVPA was 27 (IQR 11 to 50) and 25 (IQR 6 to 39) min/day in takotsubo patients < 60 and ≥ 60 years, respectively. In each age-stratified sample, 46% and 40% met the recommended 30 min/day of MVPA. Takotsubo patients spent significantly more time in SED, less time in LIPA, but similar time in MVPA, compared to both Swedish and US control populations. Moreover, mean (SD) cardiorespiratory fitness was 27.3 (4.8) mL·min⁻¹·kg⁻¹ in women <60 and 24.4 (10.2) in women >60 years of age.

CONCLUSIONS: We found no differences in the proportion of daily time spent in moderate-to-vigorous physical activity and in cardiorespiratory fitness between takotsubo patients and non-takotsubo patients. However, takotsubo patients spent more time in sedentary behaviour and less time engaging in low-intensity physical activity, which may be associated with stress-handling.