Exercise Participation and Indicators of Skeletal Muscle Health in Women with Hypothyroidism

RYAN A. GORDON, GENA D. GUERIN, EMILY L. ZUMBRO, ANN O. AMUTA, and ANTHONY A. DUPLANTY

Exercise Physiology Lab; School of Health Promotion and Kinesiology; Texas Woman’s University; Denton, TX

Category: Doctoral

Advisor / Mentor: Duplanty, Anthony (aduplanty@twu.edu)

ABSTRACT

Women with hypothyroidism report undesirable skeletal muscle symptoms at rest and during exercise. The severity of skeletal muscle symptoms may influence an individual’s willingness and capacity to exercise. PURPOSE: This study aimed to determine the relationship between exercise and skeletal muscle symptoms at rest and during exercise in women with hypothyroidism. METHODS: An online survey was completed by female participants diagnosed with hypothyroidism currently undergoing prescribed thyroid hormone treatment (n=580). Participants responded to questions related to basal muscle symptoms (MS), and muscle pain (MP) and fatigue (MF) experienced during exercise. Participants reported the type of exercise they performed, including: no exercise (NE), cardiovascular/aerobic (CV), resistance training (RT), or cardiovascular and resistance training (CVRT). Frequency of exercise and recovery time from exercise were also reported. RESULTS: Participants performing CVRT reported significantly lower MS at rest compared to CV (P<0.05), RT (P<0.05) and NE (P<0.001). There was an association between MP and the type of exercise performed (P<0.05). MF was also associated with the type of exercise performed (P<0.001). CONCLUSION: Results from this study indicate performing CVRT may improve skeletal muscle symptoms in women with hypothyroidism.