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Feasibility and Preliminary Efficacy of Heavy Lifting Strength Training versus Usual Care in Head and Neck Cancer Survivors: A Randomized Controlled Trial (the LIFTING 2 Trial)

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Background: Head and neck cancer survivors (HNCS) endure side effects including loss of muscular strength and physical functioning, fatigue, and swallowing difficulties that impact quality of life (QoL). Our team previously conducted a single-group pilot study of heavy lifting strength training (HLST) in HNCS, that showed promising results. The proposed study will build on this work to further evaluate the safety, feasibility, and preliminary efficacy of HLST compared to Usual Care (UC).

Methods: This single-centre, two-armed, randomized controlled trial aims to recruit 38 evaluable adult HNCS from the Alberta Cancer Registry who are ≥ 1 -year posttreatment with adequate shoulder ranges of motion. Participants are randomly assigned to the HLST group or UC group. The HLST group exercises twice weekly under supervision, for 12 weeks, and progresses to lifting low repetitions of heavy loads at 80-90% of perceived exertion. The UC group does not receive any exercise prescription. Physical assessments and questionnaires for both groups will occur at baseline and postintervention. The primary efficacy outcome is upper and lower body muscular strength assessed by 3-repetition maximum tests. Secondary efficacy outcomes include measures of physical function and quality of life.

Results: To date, we have mailed invitation letters to 750 HNCS through the Alberta Cancer Registry and have been contacted by 53 (7.1%) of which 36 (4.8%) were eligible and 22 (2.9%) were randomized. At baseline, mean age is 67.6 ± 6.4 years, 17 (77.3%) are males, and 17 (77.3%) were diagnosed with early stage (I-III) cancer. Mean BMI is 27.4 ± 3.4 kg/m². Two (9.1%) participants were lost to follow-up. Adherence to the exercise intervention is 95.8%, excluding the one intervention drop out. Baseline data of the whole cohort by randomized group will be described at the ISEO conference presentation.

Keywords

head and neck cancer, exercise, strength training, quality of life

Conflict of Interest & Ethical Approval

yes

Abstract submitters declaration

yes

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