

Feasibility of a remote-based exercise pilot randomized controlled trial in men with metastatic castration-resistant prostate cancer: research in progress from the CHAMP study

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Background: Aerobic and resistance exercise may improve prostate cancer clinical and quality of life outcomes. No randomized controlled trials (RCTs) have published on the safety and feasibility of exercise in men with metastatic castration-resistant prostate cancer (mCRPC).

Methods: CHAMP is an ongoing pilot RCT examining the feasibility of a 12-week remotely delivered exercise intervention in mCRPC patients (clinicaltrials.gov Identifier: NCT02613273). Men are recruited from UCSF patient lists and doctor referrals (outside referrals allowed). Select enrollment criteria include: prior bilateral orchiectomy or current androgen deprivation therapy (ADT); Eastern Cooperative Oncology Group (ECOG) performance status of 0-1; clearance to undergo a short maximal Steep Ramp exercise test on a cycle ergometer and to complete vigorous aerobic and resistance exercise training; no history of hypertension that is not well controlled; cardiologist clearance, if warranted; English-speaking; and living within 3-hours drive unless referred by MD. Participants are randomized (1:1:1) to aerobic exercise 3X/week, resistance exercise 3X/week, or control. The study protocol initially specified supervised exercise, but distance to come on site for training was a barrier to accrual. We thus developed a remote exercise program (Sept 2017) wherein all men complete their exercise prescription at a local exercise facility and visit UCSF at baseline & post-12 weeks. In this report, we present characteristics of our study population and comment on preliminary adherence to the exercise programs.

Results: As of 8/21/19, 443 patients were assessed for eligibility; 292 (66%) were not eligible. Another 122 patients were excluded due to oncologist's discretion (n=78), declined participation (n=21), and inability to contact (n=23). 25 patients have been randomized to date (9 aerobic, 8 resistance, and 8 control; 3 supervised, 14 remote). Follow-up is 96%: 20 patients completed the 12-wk study; 1 person withdrew because he moved out of state). Median age is 72, range: 51-84; median BMI is 28.7 kg/m², range: 22.6-36.7; and median time from diagnosis to enrollment is 10.5 years, range: 0.9-26.3. Three are African American, 2 are Asian, 19 are white, and 1 is other race. 80% have a 4-yr university education or higher, 84% are married or in a civil partnership, 8% are current smokers, and 32% are past smokers. Men have metastases to bone (72%), lymph node(s) (52%), and lung (8%). Overall, men travel a median of 36.8 miles one way to UCSF. The 14 remote intervention participants travel a median of 87.5 miles (range: 14-280) one way to UCSF. Men who completed the 12-week remote intervention in CHAMP attempted 98% of prescribed workouts. Of the sessions they attempted, they completed 78% as prescribed. No safety concerns have been identified.

Conclusions: A remote exercise intervention is feasible among men with mCRPC.

Conflicts of Interest: None

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