

Introduction

- Advances in breast cancer (BCa) diagnosis and treatment have improved survival rates, but Latina/Hispanic BCa survivors face long-term cardiometabolic health issues.
- These issues are partly due to cardiotoxic treatments and a decline in cardiorespiratory fitness (CRF).
- While exercise can enhance CRF, in-person programs are not always feasible for Latina/Hispanic BCa survivors.

Aim: The ROSA trial investigated a 16-week virtually supervised aerobic and resistance exercise intervention's impact on CRF among Latina/Hispanic BCa survivors (NCT04717050).

Methods

- Participants:** Sedentary, overweight or obese ($BMI > 25.0$ kg/m²) Latina/Hispanic BCa survivors.
- Randomised controlled trial utilizing two groups:** ACTIVAS (intervention) n = 32; Attention flexibility control n = 32.
- Exercise intervention (ACTIVAS):**
 - 16 weeks, 3 sessions per week.
 - Virtually supervised 1-on-1 via Zoom.
 - Combined aerobic (50-85% VO_{2peak}) and resistance exercise (60-75% 1-RM) with a linear periodization.
- Cardiorespiratory fitness:** Cycling ramp protocol with expired gas analysis (Parvomedics).
- Statistical analysis:** Paired t-test, repeated measures ANCOVA.

Results

- VO_{2peak} data was available for 58% of participants (ACTIVAS n = 17; Control n = 20).
- Baseline characteristics (Table 1) were similar for included/excluded participants (p > 0.05).

Table 1: Baseline characteristics for participants with complete VO_{2peak} data.

	Total	ACTIVAS (n = 17)	Control (n = 20)	P-value
Age at baseline (years)	55 ± 10	57 ± 8	53 ± 11	0.274
Years since diagnosis (years)	7.8 ± 5.7	7.8 ± 6.6	7.7 ± 5.1	0.949
BMI (kg/m ²)	30.0 ± 5.1	29.2 ± 5.3	30.6 ± 4.9	0.431
Prior radiation N (%)	29 (78.4)	13 (76.5)	16 (80.0)	1.000
Prior surgery	36 (97.3)	16 (94.1)	20 (100)	0.459
Prior chemotherapy	20 (54.1)	7 (41.2)	13 (65.0)	0.147

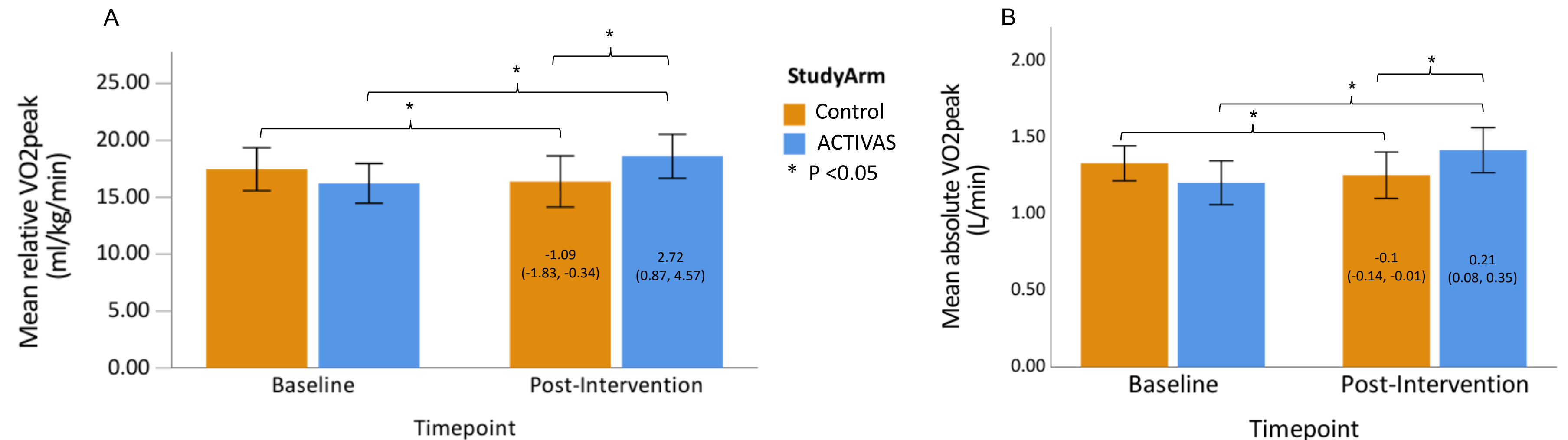


Figure 1: Mean A) relative, B) absolute VO_{2peak} at baseline and post-intervention for ACTIVAS and control groups. Values on bars represent mean difference (95% CI) from baseline.

Conclusions

- Virtually supervised exercise effectively enhances CRF among Latina/Hispanic BCa survivors.
- Future research should explore the long-term cardiometabolic benefits associated with improved CRF and the effectiveness of virtually supervised exercise, particularly for rural patients and institutions lacking adequate exercise facilities.

Connect

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