powered by

dkfz.
GERMAN
CANCER RESEARCH CENTER
IN THE HELMHOLTZ ASSOCIATION

Contribution ID: **130** Type: **1 - Scientific Poster**

Effect of 36 weeks of regular resistance training on double product in women with breast cancer

Thursday 23 July 2026 14:55 (20 minutes)

Chemotherapy is one of the main treatments for breast cancer. Cardiotoxicity can occur as a side effect of some of its components. On the other hand, regular physical exercise can improve overall and cardiovascular health of cancer patients. However, regarding cardiovascular health, most healthcare professionals still recommend exercises that predominantly involve aerobic metabolism. Unfortunately, during AER, the lower afterload, higher heart rate, and increased distension of the cardiac walls raises the myocardial demand. Resistance exercise, due to its safety, is a useful tool in the rehabilitation of most cardiovascular complications. The double product is a widely used measure in cardiology to estimate cardiac workload, and is also a relevant metric for cancer patients. The aim of this study was to analyze the effect of 36 weeks of periodized RE on the resting DP in women diagnosed with breast cancer.
25 women (51.4±8.5 years old) with breast cancer participating in the exercise program were selected. All participants underwent a periodized exercise protocol, with their blood pressure and heart rate assessed at rest, before and after 12, 24, and 36 weeks of training. The main results showed that resting blood pressure (BP) decreased significantly after the first 24 weeks of ER, becoming even more pronounced after the 36th week. We also noted that when separately analyzing previously hypertensive patients (N=8) and non-hypertensive patients (N=17), the former showed a significant reduction after the first 24 weeks, while the latter only showed a reduction after the 36th week. We concluded that 36 weeks of resistance training resulted in a significant reduction in cardiovascular overload in patients, with this reduction being significant after the first 24 weeks but proving even more effective after 36 weeks of resistance training, representing a lower cardiac workload and improved cardiovascular conditioning.

Keywords

neoplasms
breast cancer
strenght training
double product

Conflict of Interest & Ethical Approval

yes

Abstract submitters declaration

yes

Author: BRITO, Jader (Maple Tree Cancer Alliance Brasil)

Co-authors: FRANCISCO, Alice (Maple Tree Cancer Alliance Brasil); Prof. MOURA, João Luiz (Maple Tree Cancer Alliance Brasil); WONDERS, Karen (Maple Tree Cancer Alliance); MACHADO, Otavio (Maple Tree Cancer Alliance Brasil)

Presenter: FRANCISCO, Alice (Maple Tree Cancer Alliance Brasil)

Session Classification: Poster Session