



Advantages of exercise in breast cancer patients and survivors in addition to its mitigating effect on chest wall pain

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The recent article by Wong *et al.* was highly interesting¹. Exercise—especially aerobic exercise—has several beneficial effects in breast cancer patients and survivors besides mitigating chest wall pain.

Exercise regimens result in a reduction of progesterone and estrogen levels in premenopausal women at high risk of developing breast malignancies, thus attenuating the risk of breast cancers developing. In fact, Kossman *et al.*² reported that, after exercise, total progesterone exposure is decreased by nearly 24%. Exercise not only reduces breast tumour size, but also number³. In addition, cardiotoxic side effects secondary to chemotherapy with anthracyclines in breast cancer patients can be significantly decreased and attenuated by the initiation of aerobic exercise regimens in these patients⁴. Similarly, Chen *et al.* showed that exercise in the initial 3 years after a diagnosis of breast cancer is inversely related to disease-specific mortality, with a hazard ratio of 0.6⁵.

The maximum aerobic capacity is significantly increased in breast cancer survivors after moderate-intensity aerobic exercise, even for durations as short as 3 weeks⁶. Similarly, the RESTORE study showed that tailor-made exercise regimens initiated within the initial 3 months after breast surgery significantly enhance physical functioning without affecting quality of life⁷. Similarly, femoral neck bone mass loss in breast cancer patients in the premenopausal age groups is almost completely mitigated with the use of aerobic exercise regimens inclusive of circuit training and jumping⁸.

In addition, exercises targeting the upper extremities markedly improved the range of motion of the shoulder joint in breast cancer survivors⁹. Similarly, the early initiation of exercise in the postoperative period is associated with attenuated risk for the development of lymphedema¹⁰.

The above examples clearly highlight the advantages of exercise in breast cancer patients and survivors and the need for further studies to fully elaborate the beneficial effects of exercise.

Shailendra Kapoor MD
Private practice
Mechanicsville, Virginia, U.S.A.
shailendrakapoor@yahoo.com

CONFLICT OF INTEREST DISCLOSURES

The author has no financial conflicts of interest to disclose.

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