Impact of breast surgery on survival of patients with stage IV breast cancer

BACKGROUND

Stage IV breast cancer (BC) involves a tumor which has spread to other places. The main purpose of treatment is to alleviate symptoms, improve the quality of life and prolong survival. However, **breast surgery for stage IV breast cancer is controversial.**

The aim of this study was to investigate the impact of breast surgery on the survival of stage IV breast cancer patients using information from the Surveillance, Epidemiology, and End Results (SEER) database from 2010 to 2015.

METHODS

13,034 patients were enrolled in this study.

4,538 patients were assigned to the matched surgery group and the non-surgery group.

SURGERY GROUP **2,269 patients**

x100 patients

One-to-one comparisons (propensity score matching method)

x100 patients

NON-SURGERY GROUP **2,269 patients**

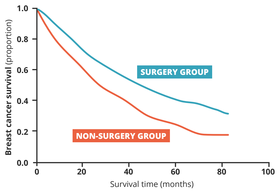
RESULTS

Patients that received breast surgery were more likely to be younger and have smaller tumors, more advanced nodal status, higher histology grade and a higher proportion of bone-only metastasis. Those who received chemotherapy and radiotherapy also tended to receive surgery.

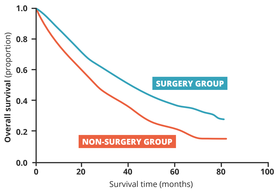
After adjustment for potential confounders, **the breast surgery group exhibited a better survival rate both in breast cancer survival and overall survival.**

SURVIVAL RATES

BREAST CANCER SURVIVAL



OVERALL SURVIVAL



MEDIAN SURVIVAL TIME

SURGERY GROUP: 43 MONTHS

NON-SURGERY GROUP: 27 MONTHS

This survival advantage persisted in all subgroups irrespective of age, race, tumor size, nodal status, histology grade, molecular subtype, chemotherapy status, radiotherapy status or status of distant metastasis.

CONCLUSIONS

Our study provided additional evidence that patients with stage IV breast cancer can benefit from breast surgery and suggests that it might play a more important role in multimodality therapy.

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