

Review: Routine follow-up tests do not improve survival and quality of life in women after treatment for early-stage breast cancer

Temple LK, Wang EE, McLeod RS, with the Canadian Task Force on Preventive Health Care. Preventive health care, 1999 update: 3. Follow-up after breast cancer. CMAJ. 1999 Oct 19; 161:1001-8.

QUESTION

What is the role of follow-up care in detecting distant disease, local recurrence, or contralateral breast cancer or in improving survival and quality of life in women after treatment for early-stage breast cancer?

DATA SOURCES

Studies were identified by searching MEDLINE (1966 to January 1998) using the terms breast neoplasms, neoplasm recurrence, local, diagnosis, and mammography and by scanning bibliographies of relevant papers.

STUDY SELECTION

English-language studies were selected if they included women who had had stage I to III infiltrating ductal adenocarcinoma of the breast and no clinical evidence of distant disease, if adjuvant therapy (when appropriate) was described, and if the follow-up duration was ≥ 5 years.

DATA EXTRACTION

Data were extracted on type of follow-up care; sensitivity and specificity of follow-up care for detecting distant disease, local recurrence, or contralateral breast cancer; study and participant characteristics; methodologic quality; and outcomes of survival and quality of life.

MAIN RESULTS

7 randomized controlled trials (RCTs) showed that blood tests and diagnostic imaging did not improve survival or quality of life more than did physical examination for detecting distant disease. For detecting local recurrence after surgery and radiation, the sensitivity and specificity of physical examination ranged from 29% to 74% and 17% to 30%, respectively, and the sensitivity and specificity of mammography ranged from 38% to 74% and 39% to 60%, respectively. No data exist to show that physical examination and mammography improves survival when used

for detection of local recurrence. The effect on survival of physical examination and mammography when used for detecting contralateral breast cancer has not been tested in RCTs.

CONCLUSIONS

Routine follow-up tests do not improve survival and quality of life in women after treatment for early-stage breast cancer. No data exist to show that physical examination with or without mammography improves survival when used for the early detection of local recurrence or contralateral breast cancer.

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For correspondence: Canadian Task Force on Preventive Health Care, Parkwood Hospital, 801 Commissioners Road East, London, Ontario N6C 5J1, Canada. FAX 519-685-4016. ■

COMMENTARY

Cancer surveillance programs have important public health implications. Although convincing scientific evidence is lacking, both patients and caregivers have generally assumed that early detection of breast cancer recurrence leads to more effective therapy and a favorable effect on morbidity, mortality, and quality of life. On the basis of this assumption, large resources have been devoted to diagnostic tests during follow-up of women after primary resection therapy for breast cancer. However, prospective and retrospective studies have failed to show improvements in survival or quality of life between symptomatic and asymptomatic detection, even after taking into consideration lead time and length bias.

Temple and colleagues conclude that no good evidence exists for including routine blood work and diagnostic imaging studies in a screening program for distant relapse after primary therapy for breast cancer. An issue that has been raised in favor of intensive

follow-up is whether it leads to psychological benefit for those women with negative diagnostic test results. However, this benefit might well be balanced by the anxiety caused by the additional diagnostic tests required to confirm suspicious findings.

It would be ideal to have highly sensitive and specific tests that would allow for the initiation of curative therapy for metastatic breast cancer, but neither is currently available. The recommendation for yearly mammography after therapy for primary breast cancer makes intuitive sense, although it has not been subjected to RCTs. Our patients deserve an explanation of the lack of survival benefit provided by these screening tests. Prospective clinical trials should be considered to improve our current practice.

*Edith Perez, MD
Mayo Clinic
Jacksonville, Florida, USA*