Q Does screening for breast cancer by regular breast self examination (BSE) reduce the incidence of breast cancer and death?

METHODS


Study selection and assessment: randomised controlled trials that included women with no diagnosis of breast cancer and evaluated regular BSE or no regular BSE.

Outcomes: mortality from breast cancer, total mortality, cancers identified, and biopsies with benign results.

MAIN RESULTS

2 studies (388 535 women) that compared regular BSE with no examination were included. 1 study from St Petersburg, Russia followed women (40–64 y) for 10–15 years. 1 study from Shanghai, China followed women (30–66 y) for 10 years. Results were pooled using a fixed effects model. Breast cancer mortality did not differ between groups in the 2 studies. The Shanghai study reported lower total mortality for the screening group than for the control group (relative risk reduction 10%, 95% CI 7 to 13). Heterogeneity existed between the studies for the number of cancers identified. The Russian study showed that more cancers were identified in the screening group than in the control group (relative risk [RR] 1.24, CI 1.09 to 1.41); this finding was not replicated in the Shanghai study (RR 0.97, CI 0.88 to 1.06). The screening group had more biopsies with benign results than the control group (2 studies) (table).

CONCLUSIONS

Available evidence on regular breast self examination (BSE) is limited. Based on 2 studies, regular BSE does not reduce breast cancer mortality, but increases the number of women who have biopsies with benign results.

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<table>
<thead>
<tr>
<th>Outcomes at 10–15 years</th>
<th>Number of studies</th>
<th>BSE</th>
<th>No BSE</th>
<th>RRI (95% CI)</th>
<th>NNH (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast cancer mortality</td>
<td>2</td>
<td>0.16%</td>
<td>0.15%</td>
<td>5% (1–19)</td>
<td>Not significant</td>
</tr>
<tr>
<td>Biopsies with benign results</td>
<td>2</td>
<td>1.7%</td>
<td>0.94%</td>
<td>88% (77 to 99)</td>
<td>130 (119 to 142)</td>
</tr>
</tbody>
</table>

*Abbreviations defined in glossary; weighted event rates, RRI, NNH, and CI calculated from data in article.

Commentary

The review by Kösters et al is an excellent follow up to work by Bøtter in 2001. After a comprehensive search, Kösters et al examined the same 2 studies using more complete data. Studies examining mammography as part of the screening strategy were excluded, and therefore the common strategy of BSE combined with mammography at prescribed intervals was not addressed in this review.

The authors conclude that, on the basis of 2 RCTs, the promotion of regular BSE as a single screening method cannot be recommended. Furthermore, the findings of this review show evidence of harm1 in the form of increased biopsies with benign results, and increased costs. Kösters et al challenge the recommendation of regular BSE adopted by various stakeholder organisations, such as the Canadian2 and American Cancer3 Societies. It should be remembered that these organisations recommend regular BSE as part of a total screening strategy and as a method of increasing women’s knowledge about their own breasts.

It has been suggested that the false positive rates in the examined studies may be reduced if BSE were part of a screening triad.4 One may also question how women might react to a sudden reversal in medical advice about BSE or how a reversal in this policy might affect women’s reaction to medical advice about other screening methods for breast cancer.4

Other questions remain. If BSE is removed from the lexicon of early detection strategies, how will women acquire the knowledge to recognise and report breast changes? Is it more harmful from a woman’s perspective to have a biopsy for a benign lesion or to miss the malignant one?

This review underscores the importance of considering the best available research evidence and patient preferences as means of increasing both the effectiveness and credibility of health care. Nurses must ensure that they offer accurate information and comprehensive teaching about this type of screening, while respecting and supporting women’s personal decisions regarding breast screening.

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