Review: limited evidence on regular breast examination does not support its effectiveness for reducing breast cancer deaths


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>Weighted event rates</th>
<th>RRI (95% CI)</th>
<th>NNH (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>BSE</td>
<td>No BSE</td>
<td></td>
</tr>
<tr>
<td>Breast cancer mortality</td>
<td>2</td>
<td>0.16%</td>
<td>0.15%</td>
<td>5% [10 to 24]</td>
</tr>
<tr>
<td>Biopsies with benign results</td>
<td>2</td>
<td>1.2%</td>
<td>0.94%</td>
<td>88% [77 to 99]</td>
</tr>
</tbody>
</table>

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