Radical prostatectomy reduced death and progression more than watchful waiting in early prostate cancer


Clinical impact ratings GP/FP/Primary care ★★★★★★ IM/Ambulatory care ★★★★★ Surgery—urology ★★★★★
Oncology ★★★★★ Nephrology ★★★★★

Q In men with early prostate cancer, how do radical prostatectomy (RP) and watchful waiting (WW) compare?

METHODS

Design: randomised controlled trial (Scandinavian Prostate Cancer Group Study Number 4).
Allocation: [concealed]†.
Blinding: blinded (outcome assessors, data safety and monitoring committee, and data analyst)†.
Follow-up period: mean 8.5–8.8 years (median 8.2 y).
Setting: 14 centres in Sweden, Finland, and Iceland.
Patients: 695 men <75 years of age (mean age 65 y) with newly diagnosed, untreated, localised prostate cancer; tumour stage T1d (later changed to T1b), T1, or T2; life expectancy >10 years; prostate specific antigen (PSA) level <50 ng/ml; and no abnormalities on bone scan.
Intervention: RP (n = 347) or WW (n = 348).
Outcomes: death from prostate cancer, distant metastasis, local progression, and death from any cause.
Patient follow up: 100% (intention to treat analysis).

*See glossary.
†Information provided by author.

MAIN RESULTS

Fewer patients in the RP group than in the WW group died from prostate cancer (table). The absolute risk reduction between groups increased from 2% at 5 years to 5.3% at 10 years. Patients who received RP also had lower rates of distant metastasis, local progression, and death from any cause (table). The benefit of RP in reducing death from prostate cancer was greatest in men <65 years of age. For correspondence: Dr A Bill-Axelson, University Hospital, Uppsala, Sweden. anna.bill.axelson@akademiska.se

Source of funding: Swedish Cancer Society.

Radical prostatectomy v watchful waiting for localised prostate cancer at median 8.2 years*

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Radical prostatectomy</th>
<th>Watchful waiting</th>
<th>RRR (95% CI)</th>
<th>NNT (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Death from prostate cancer</td>
<td>8.6%</td>
<td>14%</td>
<td>40% (8.2 to 61)</td>
<td>18 (10 to 101)</td>
</tr>
<tr>
<td>Distant metastasis</td>
<td>14%</td>
<td>23%</td>
<td>37% (13 to 54)</td>
<td>13 (8 to 40)</td>
</tr>
<tr>
<td>Local progression</td>
<td>18%</td>
<td>43%</td>
<td>57% (45 to 67)</td>
<td>5 (4 to 6)</td>
</tr>
<tr>
<td>Death from any cause</td>
<td>24%</td>
<td>30%</td>
<td>21% (~0.3 to 39)</td>
<td>16 (8 to ~)</td>
</tr>
</tbody>
</table>

*Abbreviations defined in glossary; RRR, NNT, and CI calculated from data in article.