PCI for radically treated non-small cell lung cancer: a meta-analysis using updated individual patient data of randomized trials


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## Disclosure

<table>
<thead>
<tr>
<th>(potentiële) belangenverstrengeling</th>
<th>Geen</th>
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<tbody>
<tr>
<td>Voor bijeenkomst mogelijk relevante relaties met bedrijven</td>
<td>Geen</td>
</tr>
<tr>
<td>• Sponsoring of onderzoeksgeld</td>
<td>• ZonMw, project nummer 852001923</td>
</tr>
</tbody>
</table>
Results

- Substantial between-trial heterogeneity ($I^2 = 53\%, p = 0.07$)
- Qualitative interaction between SWOG8300 and other trials ($p = 0.0062$)
- SWOG8300: out-dated staging and treatment
• Patients with at least one grade ≥3 toxicity: 31/330 (9.4%) in PCI arm vs 4/88 (4.5%) in observation arm (only NVALT-11 available for observation arm)
Subset analysis 30 Gy/10 Fr vs. 30 Gy/15 Fr

- Both schedules significantly increase BM-free survival
- No significant interaction
- Risk of neurocognitive toxicity significantly lower for patients who received 30 Gy in 15 fractions (OR 0.38, 95% CI [0.23 to 0.62])

<table>
<thead>
<tr>
<th></th>
<th>No. Deaths / No. Entered</th>
<th>O-E</th>
<th>Variance</th>
<th>HR [95% CI]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>30 Gy in 10 fractions</strong></td>
<td></td>
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<tr>
<td>NVALT-11</td>
<td>2/41</td>
<td>13/43</td>
<td>-5.7</td>
<td>3.7</td>
</tr>
<tr>
<td>Guangzhou2005</td>
<td>10/81</td>
<td>31/75</td>
<td>-12.9</td>
<td>10.1</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>12/122</td>
<td>44/118</td>
<td>-18.6</td>
<td>13.8</td>
</tr>
<tr>
<td><strong>30 Gy in 15 fractions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTOG0214</td>
<td>20/163</td>
<td>40/177</td>
<td>-9.8</td>
<td>15.0</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>20/163</td>
<td>40/177</td>
<td>-9.8</td>
<td>15.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>32/285</td>
<td>84/295</td>
<td>-28.4</td>
<td>28.8</td>
</tr>
</tbody>
</table>

Test for heterogeneity: $\chi^2 = 3.55$ p = 0.1694 $I^2 = 43.67\%$

Test for interaction: $\chi^2 = 3.38$ p = 0.0661
Conclusions

• No significant long-term OS benefit
  5-year difference 1.8%; HR=0.90, 95%CI (0.76-1.07), p=0.228

• Long-term PFS (HR=0.76, 95%CI [0.64-0.91]) and BMFS (HR=0.38, 95%CI [0.27-0.53]) significantly improved by PCI

• Severe toxicities low

• PCI not (yet) recommended in clinical practice
More about our PCI project.....

Published papers:


Accepted papers:


Abstracts and presentations:


Oral presentation at the European Lung Cancer Congress 2018


Oral presentation at the European Lung Cancer Congress 2019


Oral presentation at the World Conference on Lung Cancer 2019