Low dose aspirin lowered stroke risk but not risk of myocardial infarction or cardiovascular death in women


Q Is low dose aspirin effective for primary prevention of cardiovascular disease in women?

METHODS

Design: randomised, placebo controlled trial (Women’s Health Study).

Allocation: (concealed).*

Blinding: blinded [healthcare providers, participants, data collectors, and outcome assessors].*

Follow up period: mean 10 years.

Setting: United States and Puerto Rico.

Patients: 39 876 women ≥45 years of age (mean age 55 y) who had no history of coronary heart disease, cerebrovascular disease, cancer (except non-melanoma skin cancer), or other major chronic illness; had no history of side effects to study medications; were not using aspirin or non-steroidal anti-inflammatory medications; were not taking anticoagulants or corticosteroids; and were not taking vitamin A or E, or β carotene supplements more than once per week.

Intervention: aspirin, 100 mg every other day (n = 19 934), or placebo (n = 19 942).

Outcomes: first major cardiovascular event (non-fatal myocardial infarction, non-fatal stroke, or death from cardiovascular causes); individual cardiovascular endpoints; and adverse events.

Participant follow up: 97% [intention to treat analysis].

*Information provided by author.

MAIN RESULTS

Women receiving aspirin and those receiving placebo did not differ for rates of a first major cardiovascular event, death from cardiovascular causes, or fatal or non-fatal myocardial infarction (table). Women receiving aspirin had lower rates of stroke and transient ischemic attack but a higher rate of gastrointestinal bleeding requiring transfusion than those receiving placebo (table).

CONCLUSION

Low dose aspirin lowered risk of stroke in women but not risk of myocardial infarction or death from cardiovascular causes.

A modified version of this abstract appears in ACP Journal Club.

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Aspirin v placebo for primary prevention of cardiovascular disease in women*

<table>
<thead>
<tr>
<th>Outcomes at mean 10 years</th>
<th>Aspirin</th>
<th>Placebo</th>
<th>RRR (95% CI)</th>
<th>NNT (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major cardiovascular event</td>
<td>2.4%</td>
<td>2.6%</td>
<td>9% (–3 to 20)</td>
<td>Not significant</td>
</tr>
<tr>
<td>Stroke</td>
<td>1.1%</td>
<td>1.3%</td>
<td>17% (1 to 31)</td>
<td>443 (227 to 10377)</td>
</tr>
<tr>
<td>Death from cardiovascular causes</td>
<td>0.60%</td>
<td>0.63%</td>
<td>5% (–0.22 to 26)</td>
<td>Not significant</td>
</tr>
<tr>
<td>Transient ischemic attack</td>
<td>0.93%</td>
<td>1.2%</td>
<td>22% (6 to 36)</td>
<td>385 (216 to 1687)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RRI (CI)</th>
<th>NNNH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatal or non-fatal myocardial infarction</td>
<td>0.99%</td>
</tr>
<tr>
<td>Gastrointestinal bleeding requiring transfusion</td>
<td>0.6%</td>
</tr>
</tbody>
</table>

*Abbreviations defined in glossary; RRR, RRI, NNT, NNH, and CI calculated from data in article.
†Major cardiovascular event = non-fatal myocardial infarction, non-fatal stroke, or death from cardiovascular causes.