Circumcision reduced the risk of contracting HIV infection in young sexually active Kenyan men


Q In young sexually active men in Kenya, does circumcision prevent the transmission of HIV infection?

METHODS

Design: randomised controlled trial.
Allocation: (concealed)*†.
Blinding: (blinded (outcome assessors))†.*
Follow up period: median 24 months.
Setting: Kisumu district, Kenya.
Participants: 2784 men who were 18–24 years of age (median age 20 y), were HIV negative and sexually active (median 4 partners over lifetime), had haemoglobin concentrations >90 g/l, and planned to stay in the Kisumu district for >2 years. Exclusion criteria: foreskin covered less than half the glans, haemophilia or other bleeding disorder, high prothrombin time index, contra-indications to surgery, or absolute indication for circumcision.
Intervention: circumcision (n = 1391) or delayed circumcision (control; n = 1393). Surgery was done under local anaesthesia in the study clinic, and men were given verbal and written instructions on postoperative wound care. Participants were advised to avoid sexual activity for >30 days.
Outcomes: positive result on 2 different HIV tests and adverse effects.
Patient follow up: 91% (intention to treat analysis).

MAIN RESULTS

The study was stopped early after a third interim analysis. Fewer men in the circumcision group than in the control group contracted HIV infection over the study period (table). Adverse effects occurred in 23 circumcised men; the most common were bleeding and infection (5 occurrences each).

CONCLUSION

In young sexually active men in Kenya, circumcision reduced the risk of contracting HIV infection.

![Table showing outcomes at median 24 months for HIV infection between circumcision and control groups with RRR and NNT values](image)

<table>
<thead>
<tr>
<th>Outcomes at median 24 months</th>
<th>Circumcision</th>
<th>Control</th>
<th>RRR (95% CI)</th>
<th>NNT (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV infection</td>
<td>2.1%</td>
<td>4.1%</td>
<td>53% (22 to 72)</td>
<td>45 (34 to 109)</td>
</tr>
</tbody>
</table>

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