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


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, contraindications 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).

In young sexually active Kenyan men, circumcision reduced the risk of contracting 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.

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.

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Circumcision v delayed circumcision (control) in young sexually active Kenyan men*

<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.