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?

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.

Commentary

The study by Bailey et al indicates that adult male circumcision, together with other HIV prevention interventions, reduces HIV acquisition by half. This finding confirms those of many previous observational studies and 2 other randomised controlled trials. The effect is based on a biologically plausible mechanism of action, which has been suggested by in vitro studies. The strong treatment effect was seen in both observational and intervention studies. The authors document this beneficial effect of circumcision despite sustained increases in self-reported safer sexual behaviour, including consistent condom use.

While the Kenyan trial findings provide new options for men, an ongoing trial will examine the potential for circumcision to influence the probability of HIV transmission to women from infected men.

The low rate of adverse events related to circumcision, as performed in a well-equipped centre, suggests what may be achieved. A critical aspect of developing public health programmes that include circumcision will be the ability to provide suitable surgical care. Bailey et al speculate whether the higher rates of adverse events observed in another randomised trial in South Africa, in which general practitioners used the same surgical technique in their offices, may have been a function of the surgical setting and aftercare.

The finding that circumcision was only partially efficacious also indicates that this cannot be seen as a stand-alone intervention but will need thoughtful and sustainable integration into existing prevention approaches.

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<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.