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Circumcision in the Time of HIV: When Is There Enough Evidence to Revise the American Academy of Pediatrics' Policy on Circumcision?

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THERE HAVE BEEN 3 recent studies in Africa, involving >10 000 men, that have demonstrated a marked protective effect of male circumcision with respect to the acquisition of HIV infection.¹⁻³ The protective effect was 60% in each of the 3 trials. Furthermore, men who were circumcised were no more likely than uncircumcised men to engage in risky sexual behavior.²⁻⁴ Commentaries^{5,6} appearing in the same issue that published the 2 latest trials strongly affirm circumcision as a means of preventing HIV infection. Reviews of the literature^{7,8} have concluded that there is substantial evidence to support the conclusion that circumcision significantly reduces the rate of HIV infection, and one review concluded that "male circumcision is the most compelling evidence-based preventive strategy to emerge since the results of mother-to-child transmission clinical trials."⁹ In the United States in 2005 there were 1434 new cases of HIV infection in children and young adults 19 years of age or less¹⁰ and 453 new cases of syphilis in the same age group,¹¹ whereas the prevalence of human papillomavirus infection among females 14 to 19 years of age who were surveyed in 2003-2004 was 24.5%.¹² Although HIV infection occurs much less frequently in the United States when compared with the developing world, it still represents a substantial problem.

Circumcision also protects against certain other sexually transmitted diseases (STDs). Authors of the first systematic review and meta-analysis of the association of male circumcision with ulcerative STDs (syphilis, chancroid, and genital herpes)¹³ concluded that circumcised men are at lower risk of acquiring chancroid and syphilis than uncircumcised men. There is also compelling evidence that male circumcision protects against human papillomavirus infection and, hence, cervical¹⁴⁻¹⁹ and penile cancer.²⁰

The American Academy of Pediatrics (AAP) issued its most recent policy on newborn circumcision in 1999²¹ and reaffirmed its conclusion in 2000²² and 2005.²³ The

most recent statement concludes that although there are "potential medical benefits. . . these data are not sufficient to recommend routine neonatal circumcision."²² As discussed in 2 commentaries critical of the AAP's policy,^{24,25} the evidence for the beneficial effects of circumcision seem to have been underappreciated by the authors of the policy statement. The benefits include virtual elimination of penile cancer, as well as a marked decrease in balanoposthitis, phimosis, paraphimosis, and penile dermatosis.²⁵ It has also been pointed out that the AAP listed 6 evidence-based benefits and only one minor risk (a surgical complication rate of 0.2%-0.6%).²⁵

There is little argument that circumcision reduces the incidence of urinary tract infection (UTI) in infants^{21,25,26}; the only question involves the magnitude of its beneficial effect. Some suggest that this benefit only applies to boys at high risk of UTI,²⁷ whereas others point out that the cost/benefit ratio of preventing renal scarring, which may occur in 18% of boys who present with UTI, may make the procedure cost-effective.²⁸

In 2004, our colleagues in obstetrics and gynecology stated that "a consensus is forming that circumcision offers protection against UTI, penile cancer, cervical cancer, genital ulcer disease, and HIV."²⁶ The authors of this article, as well as others,²¹ discussed the various ways in which pain control during neonatal circumcision can be achieved and also concluded, as have others,²⁵ that there

Abbreviations: STD, sexually transmitted disease; AAP, American Academy of Pediatrics; UTI, urinary tract infection

Opinions expressed in these commentaries are those of the authors and not necessarily those of the American Academy of Pediatrics or its Committees.

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is no increase in sexual dysfunction after circumcision. They further suggested²⁶ that even after parents are given the most current information on the risks and benefits of circumcision, their decision is often based on social, cultural, religious, and racial factors, as well as the circumcision status of the father. It was also opined that “some of the medical literature about the procedure suffers from authors who put the fury of debate above the science.”²⁶ I suspect that, rather than using evidence-based data, some in the medical community who oppose neonatal circumcision use similar factors on which to base their opinions. Parents should always have the right to choose whether to have their neonate circumcised. However, they must be presented with accurate, unbiased, evidence-based data. A revised AAP policy that reflects the recent findings described above would provide health care professionals and parents with an appropriate tool to allow them to arrive at an informed decision.

It is very disturbing to note that the prevalence of circumcision has declined in the United States from 91% in the 1970s to 83% in the 1980s. From 1999–2000, it was 79%.⁷ In this age without an AIDS vaccine when many individuals, especially teenagers, practice risky sexual behavior and a significant number of people do not use condoms because of religious beliefs, lack of appropriate education, inability to afford them, or difficulty in acquiring them, circumcision may offer the best method for protection against certain STDs, especially HIV.

I firmly believe that there is now sufficient, new information to prompt a revised AAP policy statement regarding neonatal circumcision, considering the very significant beneficial effects and the very minor risks associated with the procedure.

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