

Should newborns be circumcised?

NO

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For millennia, the rite of infant male circumcision was performed for religious reasons. In the late 1800s physicians began to circumcise baby boys for “medical” reasons, primarily a hope that circumcision would result in a decrease in masturbation. As time progressed, some argued that the public health of the community would be served because routine circumcision would decrease risks of transmission of sexually transmitted infections. Still later, an association was made between urinary tract infections (UTIs) in the first year of life and the presence or absence of the foreskin. Currently the debate has been refueled by the news that African men are less likely to contract AIDS if they have been circumcised in adulthood.

Other frequently offered reasons include improved hygiene or to have Baby Boy resemble Daddy (“It’s a tradition in our family,” as one mom put it recently in my practice). Circumcision for religious reasons is a different issue, although, according to an article in *The Globe and Mail*,¹ even in those circumstances there is room for second thought.

Critical appraisal

Some of the reasons put forward have no good studies to support them. I suspect that very few of us would recommend a surgical procedure to prevent masturbation, and circumcision to enhance hygiene is the equivalent of pulling teeth to prevent plaque and cavities! As far as I am aware, very few infants and toddlers have genitalia that resemble their fathers’, and I do not know of any studies which demonstrate that this causes psychological harm.

Circumcision certainly reduces the risk of UTIs in male infants younger than 1 year—by 10-fold.² One has to be careful about relative risk reduction, though. According to Christakis et al.,³ 100 babies would need to be circumcised to prevent 1 UTI. Based on their calculations of the number needed to treat versus the number needed to harm, for each complication of circumcision 6 UTIs would be prevented. One wonders whether antibiotics would be less painful.

Most parents would be interested in protecting their sons from the spectre of AIDS. It is not surprising then that studies showing that circumcised men (in Africa) are less likely to contract the disease^{4,5} have generated a lot of interest. Are these data translatable to Canada?

Circumcision of adult men reduced their risk of acquiring HIV by half, from 4.2% to 2.1%, in the Kenyan study.⁴ This represents 47 out of 1393 uncircumcised men and 22 of 1391 circumcised men. In Uganda⁵ there was also a 50% drop in infection rates, from 45 of 2522 uncircumcised men to 22 of 2474 circumcised men (or perhaps the denominator is closer to 900 in the Ugandan trial—there seemed to be a fair drop-out rate by 24 months). While the relative risk reduction numbers are most impressive, this is a lot of surgery. The number needed to treat in these studies is about 55.

One also wonders about the relative numbers of possible exposure to HIV infection in the 2 groups. There might have been a reduction in the number of times that HIV could have been transmitted in the group of men circumcised as part of the study.

The baseline incidence of HIV in these studies was 1.6%. In Canada, with a population of 32 930 000 and counting,⁶ and a top estimate of 4500 new cases of HIV in 2005,⁷ the baseline incidence is 0.013, giving a number needed to treat >5000. This is 5000 adult males circumcised to prevent 1 new HIV infection. It is not possible to transfer these data to infant circumcision.

The baseline complication rate for infant circumcision is quoted as 0.2% to 10% at the time of surgery and 5% for late complications of meatal stenosis. Although most of these include hemorrhage at the time of the procedure, there have been instances of amputation of the glans, acute renal failure, and sepsis.² In 5000 infant circumcisions there will be between 10 and 500 complications of varying severity.

Summary

The Kenyan and Ugandan studies show a reduction

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The parties in this debate will have the opportunity to refute each other’s arguments in Rebuttals to be published in an upcoming issue.

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in acquisition of HIV in men circumcised as adults in Kenya and Uganda. They do not translate well to infant circumcision, especially in regions with a low lifetime risk of HIV infection.

Urinary tract infections in infants and toddlers have very good diagnostic and treatment options and do not require surgical prophylaxis. The concept brings to mind a comment by a surgical colleague, "If there is a medical treatment and a surgical treatment, why would anyone opt for a medical treatment?"

Although there is evidence that circumcision will provide certain health benefits, the evidence continues to show that for little boys born in Canada, where antibiotics are readily available, the physical harm outweighs long-term benefit for both HIV and UTI prevention.

The ethical issues in removing healthy tissue from patients who are unable to consent to the procedure forms the basis of another treatise. One can only imagine the outcry if baby girls were submitted to cosmetic surgery in the first few days of life. Do our baby boys deserve less?

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Competing interests

None declared

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CLOSING ARGUMENTS

- Circumcision has been shown to reduce rates of HIV and urinary tract infections in adult and infant males, respectively.
- Circumcision is a surgical procedure with surgical risks and attendant pain.
- Harms continue to outweigh benefits for routine neonatal circumcision.
- We would not tolerate routine genital surgery on baby girls (and do not tolerate it in this country); why do we tolerate it for baby boys?

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