

Circumcision Risks, Benefits and the Prospective

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Abstract

Circumcision is one of the earliest surgical interventions done in Albania as religion and medical procedure. Circumcision is a religious or cultural ritual for many Jewish and Islamic families, as well as certain aboriginal tribes in Africa and Australia. Circumcision can also be a matter of family tradition, personal hygiene or preventive health care. Sometimes there's a medical need for circumcision, such as when the foreskin is too tight to be pulled back (retracted) over the glans. In other cases, particularly in certain parts of Africa, circumcision is recommended for older boys or men to reduce the risk of certain sexually transmitted infections.

The American Academy of Pediatrics (AAP) says the benefits of circumcision outweigh the risks. However, the AAP doesn't recommend routine circumcision for all male newborns. The AAP leaves the circumcision decision up to parents and supports use of anesthetics for infants who have the procedure.

Circumcision might not be an option if certain blood-clotting disorders are present. In addition, circumcision might not be appropriate for premature babies who still require medical care in the hospital nursery. Circumcision doesn't affect fertility, nor is circumcision generally thought to enhance or detract from sexual pleasure for men or their partners.

In conclusion, circumcision as surgical intervention even though there are no major complication and risks, there are many studies that show considerable benefits, however, should not be done routinely as other factors must be taken into consideration like social and economic costs of health care of medical intervention and service utilization for non-medical purposes.

Keywords: Circumcision, surgical intervention, medical care, risk, benefits

Introduction

Male circumcision is the surgical removal of the foreskin from the human penis. In a typical procedure, the foreskin is opened and then separated from the glans after inspection. The circumcision device if used is placed, and then the foreskin is removed. Topical or locally injected anesthesia may be used to reduce pain and physiologic stress. For adults, general anesthesia is an option, and the procedure is often performed without a specialized circumcision device. The procedure is most often elected for religious reasons or personal preferences, but may be indicated for both therapeutic and prophylactic reasons. It is a treatment option for pathological phimosis, refractory balanoposthitis and chronic urinary tract infections (UTIs); it is contraindicated in cases of certain genital structure abnormalities or poor general health.

The positions of the world's major medical organizations range from considering neonatal circumcision as having no benefit and significant risks to having a modest health benefit that outweighs small risks. No major medical organization recommends either universal circumcision for all infant males, aside from the recommendations of the World Health Organization for parts of Africa, or banning the procedure. Ethical and legal questions regarding informed consent and autonomy have been raised over non-therapeutic neonatal circumcision.

Discussion

A 2009 Cochrane meta-analysis of studies done on sexually active heterosexual men in Africa found that circumcision reduced their acquisition of HIV by 38–66% over a period of 24 months [1]. The WHO recommends considering circumcision as part of a comprehensive HIV program in areas with high endemic rates of HIV, such as sub-Saharan Africa, where studies have concluded it is cost-effective against HIV. Circumcision reduces the incidence of HSV-2 infections by 28% [2], and is associated with reduced oncogenic HPV prevalence and a reduced risk of both UTIs and penile cancer, but routine circumcision is not justified for the prevention of those conditions. Studies of its potential protective effects against other sexually transmitted infections have been inconclusive. A 2010 review of literature worldwide found circumcisions performed by medical providers to have a median complication rate of 1.5% for newborns and 6% for older children, with few instances of severe complications [3]. Bleeding, infection and the removal of either too much or too little foreskin are the most common complications cited. Circumcision does not appear to have a negative impact on sexual function.

Routine or elective

Neonatal circumcision is often elected for non-medical reasons, such as for religious beliefs or for personal preferences possibly driven by societal norms. Outside the parts of Africa with high prevalence of HIV/AIDS, the positions of the world's major medical organizations on non-therapeutic neonatal circumcision range from

considering it as having a modest net health benefit that outweighs small risks to viewing it as having no benefit with significant risks for harm. No major medical organization recommends non-therapeutic neonatal circumcision, and no major medical organization calls for banning it either. The Royal Dutch Medical Association, which expresses the strongest opposition to routine neonatal circumcision, does not call for the practice to be made illegal out of their concern that parents who insist on the procedure would turn to poorly trained practitioners instead of medical professionals. This argument to keep the procedure within the purview of medical professionals is found across all major medical organizations. In addition, the organizations advise medical professionals to yield to some degree to parents' preferences, commonly based in cultural or religious views, in the decision to agree to circumcise.

Owing to the HIV/AIDS epidemic there, sub-Saharan Africa is a special case. The finding that circumcision significantly reduces female-to-male HIV transmission has prompted medical organizations serving the affected communities to promote circumcision as an additional method of controlling the spread of HIV. The World Health Organization (WHO) and UNAIDS (2007) recommend circumcision as part of a comprehensive program for prevention of HIV transmission in areas with high endemic rates of HIV.

Medical indications

Circumcision may be medically indicated in children for pathological phimosis, refractory balanoposthitis and chronic, recurrent urinary tract infections (UTIs) in males who are chronically susceptible to them. The World Health Organization promotes circumcision as a preventive measure for sexually active men in populations at high risk for HIV. Circumcision is also recommended for HIV prevention by the International Antiviral Society-USA for all sexually active heterosexual males and is recommended that it be discussed with men who have sex with men, especially in areas where HIV is common.

Contraindications

Circumcision is contraindicated in infants with certain genital structure abnormalities, such as a misplaced urethral opening (as in hypospadias and epispadias), curvature of the head of the penis (chordee), or ambiguous genitalia, because the foreskin may be needed for reconstructive surgery. Circumcision is contraindicated in premature infants and those who are not clinically stable and in good health. If an individual, child or adult, is known to have or has a family history of serious bleeding disorders (hemophilia), it is recommended that the blood be checked for normal coagulation properties before the procedure is attempted.

Cost effectiveness considerations

The overall cost-effectiveness of neonatal circumcision has also been studied in the United States, which has a significantly different cost setting from Africa in areas such as public health infrastructure, availability of medications, and medical technology and the willingness to use it [4]. A study by the CDC suggests that newborn circumcision would be societally cost-effective in the United States based on circumcision's efficacy against the heterosexual transmission of HIV alone, without considering any other cost benefits [5]. The American Academy of Pediatrics (2012) recommends that neonatal circumcision in the United States be covered by third-party payers such as Medicaid and insurance. A Johns Hopkins study (2012) that considered reported benefits of circumcision such as reduced risks from HIV, HPV, HSV-2 and UTIs calculated that if the circumcision rate in the United States were to drop from 55% to 10% (the rate in Europe), it would "increase lifetime health care costs by \$407 per male and \$43 per female" [6]. The cost of the procedure is more expensive for an older male than a newborn [7].

Conclusions

Circumcision as surgical intervention even though there are no major complication and risks, there are many studies that show considerable benefits, however, should not be done routinely as other factors must be taken into consideration like social and economic costs of health care of medical intervention and service utilization for non-medical purposes.

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