

Rolling out male circumcision as a mass HIV/AIDS intervention seems neither justified nor practicable

Two articles^{1,2} published in this issue address male circumcision (MC).

Connolly *et al.*¹ show in a national survey that MC, whether pre-pubertal or post-pubertal, has no protective effect on acquisition by males of HIV infection as measured by prevalence.

Sidler *et al.*² state that neonatal MC continues to be promoted without adequate justification as a medicalised ritual, via an HIV prevention rationale. They caution that for MC to be a therapeutic as opposed to a non-therapeutic procedure, it is necessary to gather more corroborative and consistent evidence of its benefit, consider the potential harms (psychological, sexual, surgical and behavioural/disinhibition), examine the ethical implications, and examine effectiveness and efficiency (costs and benefits) at the population and societal levels. They point out that MC is not just a technical surgical intervention – it takes place in a social context that can radically alter the anticipated outcome. At the 2008 International AIDS Conference³ in Mexico cultural, political and educational issues raised by the intervention, such as decreased condom use and marginalisation of women, were hotly debated. Some cultural interpretations may view MC as a licence to have unprotected

sex. A case in point is Swaziland, where men are flocking to be circumcised with the understanding that this means they no longer need to use other preventive methods (e.g. wear condoms or limit the number of sexual partners).⁴

The 2003 Cochrane review⁵ of observational studies of MC effectiveness concluded that there was insufficient evidence to support it as an anti-HIV intervention. Three randomised controlled trials (RCTs) from South Africa, Kenya and Uganda in 2006 - 2007 show a protective effect of MC. However, Garenne⁶ has subsequently shown from observational data that there is considerable heterogeneity of the effect of MC across 14 African countries. Despite the South African RCT showing a protective effect, he reports for the nine South African provinces that 'there is no evidence that HIV transmission over the period 1994 - 2004 was slower in those provinces with higher levels of circumcision'. Interestingly, in both Kenya and Uganda, where two of the RCTs were done, a protective effect of MC was observed, but a harmful effect was observed in Cameroon, Lesotho and Malawi. The other eight countries showed no significant effect of MC.

These somewhat discordant findings are difficult to interpret. While RCTs are theoretically strong designs, it is conceivable



that their findings are not generalisable beyond their settings. Furthermore, there have been no trials of neonatal MC. Study flaws such as inability to obtain double blinding, and loss to follow-up in RCTs, may effectively degrade their quality to that of observational studies. Meanwhile other disturbing findings referred to by Sidler *et al.* are emerging, including the reported higher risk for women partners of circumcised HIV-positive men, disinhibition, urological complications, relatively small effect sizes of MC at the population level, and relative cost-inefficiency of MC.

Not all objections to MC as an HIV intervention have to do with evidence of effectiveness or cost. Sidler *et al.* raise ethical objections. Owing to the current climate of desperation with regard to the HIV epidemic, evidence in favour of MC frequently seems overstated. This reduces the scope for informed consent and autonomy for adult men considering the procedure. Further problems arise in the case of neonates whose parents may be considering the procedure. Whereas informed consent is at least possible for adult men, it is clearly not possible for neonates. Parents can only guess what the child's wishes would be if he were presented with the information they have at their disposal. If it could be shown that circumcision was necessary in the neonatal period, parental consent on behalf of the neonate would be justified. But since no valid surgical indications for circumcision exist in this period, and the future benefit to the child in respect of HIV avoidance is not relevant before sexual debut, the duty of parents may well be to err on the side of caution, and defer the procedure until the child can make an autonomous decision. In the absence of compelling indications, a procedure such as circumcision could also be seen as a violation of the child's right to bodily integrity. Furthermore, the ethical principle of non-maleficence cannot be upheld as there are clear harms attached to this practice, to which Sidler *et al.* refer in their article. Lastly, at a societal level MC may be unjust insofar as it could compete for resources with more effective and less costly interventions⁷ and disadvantage women.

Despite a strong pro-circumcision lobby driven by enthusiasts who have been promoting MC as an (HIV) intervention for many years, and impatience expressed by protagonists about the long delay after the 2006 - 2007 RCT results and the UNAIDS/WHO policy recommendations⁸ of March 2007, few mass campaigns have been launched in African countries.

Given the epidemiological uncertainties and the economic, cultural, ethical and logistical barriers, it seems neither justified nor practicable to roll out MC as a mass anti-HIV/AIDS intervention.

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