



OPINION ARTICLE

UPDATED Female circumcision: Limiting the harm [v2; ref status: indexed, <http://f1000r.es/RHhQ7C>]

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Abstract

Objective: To review the strength of evidence that links many health hazards to female genital cutting.

Material and methods: Literature search in Medline/Pubmed and Google scholar.

Results: Female genital cutting is still practiced secretly in both underdeveloped and developed countries due to prevailing strong traditional beliefs. There is insufficient evidence to support the claims that genital cutting is a harmful procedure if performed by experienced personnel in a suitable theatre with facilities for pain control and anesthesia. Cutting, however, is advised not to go beyond type I.

Conclusion: Law makers around the globe are invited to review the legal situation in relation to female genital cutting. Proper counseling of parents about possible risks is a must in order to make informed decision about circumcising their daughters. The procedure should be offered to parents who insist on it; otherwise, they will do it illegally, exposing their daughters to possible complications.

Article Status Summary

Referee Responses

Referees	1	2	3
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v2 published 08 Nov 2012 UPDATED			 report

- 1 **Ahmed Fetouh**, Al-Azhar University for Girls Egypt
- 2 **Hisham Kandil**, Cairo University Egypt
- 3 **Ali Akoum**, Laval University Canada

Latest Comments

Mohamed Kandil, Department of Obstetrics and Gynecology, Faculty of Medicine-Menofya University, Shubin Elkom, Egypt
 24 Dec 2012 (V2)

Malcolm Griffiths, Obstetrics and Gynaecology, Luton & Dunstable Hospital, UK
 29 Nov 2012 (V2)

Robert Van Howe, Department of Pediatrics and Human Development, Michigan State University College of Human Medicine, USA
 08 Nov 2012 (V2)

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UPDATED Changes from Version 1

I have updated my opinion article to avoid confusing the readers and taking into consideration the feedback I received from the referees and user comments. Firstly, I want to make it completely clear to all that I do not condone female circumcision. In retrospect, the title of the first version was particularly misleading, and so I have now changed it to reflect the scientific opinion I am trying to convey.

Many believe that female circumcision helps personal cleanliness of young girls, preserves virginity, and enhances sexual pleasure for the husband, while for others, it is a religious right. Because of this, and despite the legal ban in most parts of the world, female circumcision is still practiced illegally by unqualified personnel using non-sterilized instruments.

Female circumcision is rightly recognized as a harmful practice. However, there is no high-quality medical evidence to demonstrate this: only Level III evidence exists – described in evidence-based medicine levels as the opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees. Even so, no single procedure in medicine would be banned based on this evidence alone and this poses a significant problem because it would be completely unethical to aim for a higher level of evidence such as a randomised controlled trial. I believe that a total ban of the procedure is ineffective, and may lead individuals to look for illegal and often incompetent practitioners, thus exposing their daughters to possible catastrophes. The international efforts aiming to ban female circumcision should be directed towards demonstrating that it is a surgical practice with no known benefit, rather than illustrating the complications associated with it. Once people become convinced that it is of no value, they will start to question their use of the practice; in this situation, the initiative to eliminate female circumcision will be theirs. I believe that a change of strategy from “complications awareness” to “no benefit awareness” should be the first step in the long journey that must be taken before the total elimination of female circumcision can be a reality. Meanwhile, we should be able to respond to social calls for circumcision with the least possible damage.

See referee reports

Introduction

Female genital cutting/mutilation (FGC/M), or circumcision as it was previously described¹, is held responsible for a multitude of health risks. According to WHO, FGC/M is defined as “all procedures that involve partial or total removal of the external female genitalia, or other injury to the female genital organs for non-medical reasons”².

The legislations enacted in most countries to ban FGC had minimal effect on its prevalence³. In the most recent estimate carried out by the WHO in 2008, an average of between 100 and 140 million women have undergone FGC in the world and every year, 3 million female children are mutilated in Africa⁴.

Female genital cutting in medical literature

I searched the English literature in Medline/Pubmed and Google Scholar for female genital cutting/mutilation and circumcision in the period from January 1980 until January 2012. The available studies showed that FGC may result in either physical and/or psychological injuries, immediate and/or late.

Alleged health hazards

Immediate complications

The three immediate complications are bleeding, pain and infection. They are not unique to FGC. They are liable to occur with any other type of female surgery, whether minor or major. Bleeding is liable to occur with the tiniest injury to the body, not only genitalia, and death may occur if not dealt with. Pain during genital cutting was attributed to non use of anesthesia or pain killers during the procedure⁵, something which is expected with any other similar situation. The procedure is illegal in most countries of the world and it is routinely performed at home using non-sterilized instruments. Infection is the normal sequel for any surgical interference performed in such an environment. We should ask ourselves what would be the percentages of these complications if FGC was performed in a well-equipped theatre by experienced personnel. They would probably not be different to any other surgical procedure.

Late complications

The alleged late risks include a wide variety of complications. Scars and keloid formation may occur⁶. It is well known that the type of scar depends on the mode of healing, whether by primary or secondary intention. Healing with secondary intention and the formation of ugly scars occurs if the wound is left to heal on its own without repair. This pattern of healing is expected because the procedure is usually performed by the traditional illiterate birth attendant (IBA) at home. Epidermoid cysts may form probably due to cutting with non sharp instruments or imprecise cutting by the traditional IBA or un-experienced surgeon⁷. The occurrence of both complications can be minimized if the procedure is performed in a well-prepared theatre. Controversy exists as for sexual pleasure. Although many researchers reported that female genital mutilation interferes negatively with women’s sexual pleasure, others provided contradictory evidence and confirmed that women with types I and II cuttings were able to enjoy their sex lives^{8,9}. Lightfoot-Klein¹⁰ conducted a study on infibulated females “type III cutting” in Sudan and, based on her findings, she stated that nearly 90% of all women said that they experienced orgasm or had experienced it at various periods in their marriage. Thabet et al. showed that women with type II cutting complain of defective sexuality compared to non circumcised women, while women with the more extensive type III cutting are not different to controls¹¹. This is not logical. If FGC is responsible for defective sexuality, those with type III cutting should have the maximum suffering. The explanation for this contradiction is because sexual arousal is not only dependent upon clitoral stimulation. It involves the stimulation of nerve endings in and around the vagina, vulva, cervix, uterus and clitoris, with psychological response and mindset also playing a role^{12,13}.

There are claims that women who have undergone genital cutting may have a feeling of inferiority¹⁴. This is apparent when these women immigrate to western societies which do not practice FGC. This psychological burden probably stems from the fact that their new societies consider FGC as abnormal contradicting the traditions and beliefs they have grown up with. There are other claims that infertility may also complicate FGC. Reasons are anatomic disfigurement due to excessive scarring after infibulation “type III”

probably resulting from healing by secondary intention. Another cause is the associated infection; that might arise after FGC, to the internal genitalia causing inflammation and scarring and subsequent tubal block¹⁵. Infection again is due to the improper environment where the procedure was performed.

The WHO reported that obstetric complications are more likely to occur with genital cuttings and the risk increases with more advanced cutting¹⁶. This conclusion was based on a WHO collaborative prospective study which included 28,393 women attending for singleton delivery at 28 obstetric centers in Burkina Faso, Ghana, Kenya, Nigeria, Senegal, and Sudan. The WHO study and few others also showed that a higher percentage of cut women deliver by Cesarean section compared to uncut women due to an increased number of obstructed labors. There is a higher incidence of infant resuscitation, stillbirth, or neonatal death in mothers with FGC¹⁶⁻¹⁸. One of the major drawbacks of the WHO study is that the population studied is not representative for the whole population in the selected countries. In poor societies, only high-risk and complicated pregnancies are referred to hospitals. Such cases are more liable for adverse obstetric outcomes. This may have overestimated the rate of complications in women with FGC who attended hospitals to deliver. Claims for increased Cesarean deliveries in cut women were attributed to obstructed labor most likely due to excessive scarring at the pelvic outlet probably resulting from the imperfect healing of the genital cutting and possible associated infection. However, the high Cesarean rate in this population cannot be attributed solely to obstruction due to excessive outlet scarring; obstructed labor may occur due to a variety of reasons. In fact, excessive scarring at the pelvic outlet is the easiest reason to deal with, using a generous episiotomy. The reason for increased stillbirth and/or neonatal death in mothers with FGC is probably related to the obstructed labor; whatever the reason is, it is not a direct complication of FGC.

Comments

The decline in FGC practice is not proportionate to the efforts exerted³. It is not easy to give up your traditions and cultural beliefs for what is considered, by many, to be an attempt to westernize societies in the third world. Many believe that national and international feminist organizations and child rights' advocates have propagated misleading or unproven information through the media in order to force governments to prohibit the procedure. In fact, all the above-mentioned health hazards were concluded from studies that showed inconsistent findings. Some of them confirmed the hazards of FGC while others failed to prove them. In the era of evidence based medicine, level I evidence, derived from either systematic reviews or randomized controlled trials (RCTs), to support the ban against FGC is not available. Such studies were never considered by the WHO or any other international health organization before

the ban of FGM takes place in most countries. In fact, the design and implementation of a RCT to address the effects of FGC cannot be justified and seems to be unethical. In light of this fact and in the absence of any scientific evidence to support the practice of female circumcision, the available level III evidence, derived from retrospective studies and studies depended on self-reported FGC and its health consequences, should be taken into consideration in spite of their imprecision and low reliability^{19,20}.

Religious and cultural views

In Islam and Judaism, male circumcision is a must while female is not. In Islam, if female circumcision is desired by parents, it should not go beyond type I FGC (Ia is removal of the prepuce and Ib is removal of the prepuce and clitoris) according to hadith "Sunna type of circumcision". This type of female genital surgery is equated with male genital surgery²¹. In support of hadith, many studies showed that women with clitoridectomy "type I cutting" are less likely to develop gynecologic or obstetric complications compared to infibulated women "type III"⁶. Considering that the number of Moslems in the world ranks second, it seems logical to reconsider the legal attitude towards female circumcision and probably avoids the ban directed towards Sunna circumcision.

It therefore seems that the prohibition of FGC for those who strongly believe in circumcision in the absence of solid scientific evidence does not respect their traditions and cultural beliefs. Women in societies which practice FGC and the practicing immigrant minorities living in the west consider that strength and identity partly come from the pain and difficulty which FGC causes, making them 'strong' and 'desirable' women^{22,23}.

Conclusions

To conclude, law makers all around the globe are invited to review the legal situation of female circumcision. Parents, especially immigrants to the western world from the practicing societies, should be properly counselled for the possible complications, but should also be informed that these data were not derived from randomized controlled trials. Those who insist on circumcising their daughters should be allowed to do so, but advised not to exceed type I cutting; otherwise, they will go for it secretly and illegally by inexperienced personnel in a poorly hygienic environment with the possibility of complications.

Competing interests

No competing interests were disclosed.

Grant information

The author(s) declared that no grants were involved in supporting this work.

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Current Referee Status:

Referee Responses for Version 2



Ali Akoum

Department of Obstetrics and Gynecology, Laval University, Québec, PQ, Canada

Approved with reservations: 19 November 2012

Referee Report: 19 November 2012

I personally think that the study is well performed. The author made a fair presentation of the literature and outlined the various studies and statistics on this subject, which, the least we can say is delicate and controversial.

The author presents a point of view that advocates a change in legislation in order to make this practice legal and carried out by professionals in an appropriate and sterile environment, so that to reduce the risk of infection and sequelae. That being said, I think it would have been appropriate to make sense of things and take into account the traditions and cultures of the peoples who perpetuate and believe traditionally and/or religiously in the virtues of this practice and other peoples who do not share this point of view and condemn such practices for equally valid social and cultural reasons.

Perhaps it is better to firstly encourage change, possibly via the WHO, humanitarian organizations, diplomatic channels, etc., and make every effort to ensure that the authorities of the countries concerned put an end to conditions often atrocious, unacceptable and condemnable in which these interventions are made, and the way one treat and mutilate young girls who despite the strong traditions and cultures have fundamental rights that must be respected. If we admit that we cannot change traditions and habits and must avoid to “westernize” the way of life of other peoples and if genital cutting in girls is “mandatory” by the force of tradition and culture in some countries, one must ensure that such interventions are carried out in an environment that allows these girls not to suffer and experience significant physical and psychological distresses. On the other hand, we do not have as a society to change our laws and go against our values to legalize or allow such practice to any group of our fellow citizens, especially as there is no scientific evidence that it improves in anything the wellbeing of women and brings an advantage that they cannot do without. Rather, we should ensure that our laws protecting human rights and the physical, moral and psychological integrity of a person are respected.

I have read this submission. I believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Competing Interests: No competing interests were disclosed.

Referee Responses for Version 1



**Hisham Kandil**

Department of Obstetrics and Gynecology, Cairo University, Cairo, Egypt

Approved: 16 October 2012

Referee Report: 16 October 2012

I approve the validity of this opinion article with some minor remarks.

I personally do not approve of female genital cutting as a general routine, however it is commonly practiced in rural areas of third world countries. Due to this, it is important to study how to best deal with the problem rather than totally deny it. The first degree procedure may be a first step towards avoiding further damage.

I think that the final section 'final remarks' should be replaced with the title 'conclusions'.

I have read this submission. I believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Competing Interests: No competing interests were disclosed.

**Ahmed Fetouh**

Faculty of Medicine, Al-Azhar University for Girls, Cairo, Egypt

Approved: 11 October 2012

Referee Report: 11 October 2012

My own personal stand is against female genital cutting except as a plastic surgery procedure for restricted indications.

I have read this submission. I believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Competing Interests: No competing interests were disclosed.

Article Comments

Comments for Version 2

Author Response

Mohamed Kandil, Department of Obstetrics and Gynecology, Faculty of Medicine-Menofya University, Shibin Elkom, Egypt

Posted: 24 Dec 2012

In reply to Malcolm Griffiths

Thank you for your comment.

In fact these 2 statements are not contradictory if you consider the title "limiting the harm". It is true that I said in my conclusion that parents who INSIST should be allowed to do so. This is applicable to poor and illiterate societies where the traditions cannot be overcome by law. In such societies, when doctors refuse to perform the procedure, the child is usually taken to a barber who performs the procedure with unsterilized razors with possible catastrophes to the young girls. In this situation and only in this situation, which is better? To allow medical professionals to perform the procedure with the mildest possible degree ("type 1") or leave it to a barber to perform it? That is the message I am trying to convey.

I agree with you that a civilized mother or father would not agree to perform the procedure for his/her daughter but an illiterate parent would, especially in areas where illiteracy rates exceed 60% and together especially when extreme poverty and social traditions prevail.

Competing Interests: No competing interests were disclosed.

Malcolm Griffiths, Obstetrics and Gynaecology, Luton & Dunstable Hospital, UK

Posted: 29 Nov 2012

The author states that he does not condone FGM, yet in his conclusions he says:

"Those who insist on circumcising their daughters should be allowed to do so, but advised not to exceed type I cutting". These two statements are absolutely contradictory. No civilised father or mother would seek to abuse their daughter by forcing her into FGM. The practice is abhorrent and this piece pays lip-service to FGM.

Competing Interests: No competing interests were disclosed.

Robert Van Howe, Department of Pediatrics and Human Development, Michigan State University College of Human Medicine, USA

Posted: 08 Nov 2012

I applaud the courage of the editorial staff in publishing this important opinion piece. In 2010 the American Academy of Pediatrics Committee on Bioethics concluded that forms of female genital cutting that were less invasive than the commonly practiced form of male genital cutting were acceptable, even though such forms of FGC were illegal in the United States. One has to wonder if a series of poorly designed studies found a "significant" association between FGC and a lowered risk of UTIs, some forms of STDs, and HIV infection if the AAP would need to change their position and state that the benefits outweigh the risks?

The hypocrisy in the United States of promoting male genital cutting, but outlawing female genital cutting is

palpable. European nations are beginning to understand that genital cutting on non-consenting minors, regardless of sex, is a human rights violation. Neither the 2010 AAP statement on FGC or their 2012 statement of male genital cutting addressed the issue of the child's basic human right to bodily integrity and security of person. This may be because key panel members do not believe that infants and children have basic human rights, but are merely the property of their parents. Instead they left the most effective arrow in their quiver. The strongest argument against the cutting of the genitals in non-consenting minors is that it violates a basic human right. The medical aspects are secondary. It is my opinion that the AAP didn't mention human rights when talking about FGC is because they would then be compelled to discuss human rights when talking about male genital cutting. They didn't want to go down that path because cutting the foreskin off male infants is a multi-million dollar business.

Finally, I would direct the author to an article by Sarah Waldeck that demonstrates how cultural values can skew how we interpret medical information.

Competing Interests: No competing interests were disclosed.

Comments for Version 1

F1000 Research, UK

Posted: 12 Oct 2012

Thank you for the concerns you raise. We consider every article carefully on its scientific merit, not on whether we agree with the view of the scientist. I agree it is a very controversial topic and I also don't believe the authors of the article are in any way condoning female circumcision. They do however point out that there are strong cultural and religious beliefs about it and hence if the parents insist on it, they have demonstrated scientific evidence that if the female circumcision is done in a clinical setting with appropriate pain control and anesthesia, then the likelihood of physical complications is very low. If the procedure is driven out of a clinical setting by making it illegal, then it will still be done, but in an inappropriate setting by untrained personnel where the risks of complications are very high. The focus of the article is on the comparison of the outcome between when it is done illegally versus when done in a clinical setting with appropriately trained individuals. The article is therefore simply a piece of scientific evidence that can help inform the debate about whether it should be a legal practice or not, which will then occur elsewhere by all those who have an interest in the moral and legal aspects of this complex issue, issues that this article rightly does not attempt to discuss here. If the scientific publishing community and scientists as a whole are to suppress such scientific articles, then it means that such moral and legal debates will be ill-informed on the various scientific issues that relate to this topic.

Rebecca Lawrence, Publisher, F1000 Research

Competing Interests: No competing interests were disclosed.

Vitaly Citovsky, Department of Biochemistry and Cell Biology, USA

Posted: 11 Oct 2012

As a member of the scientific community and the editorial board of this journal, I would like to express my total opposition to any attempts to justify female genital mutilation in any form. I believe it is demeaning, spiritually and physically, to women, and it is illegal in most civilized countries. Any attempts to provide a scientific basis for this procedure (academic freedom notwithstanding), in my opinion, are akin to providing scientific basis for eugenics approaches (which has unfortunately been done in the recent history).

Competing Interests: No competing interests were disclosed.
