



Effects of female genital mutilation on childbirth in Africa

Background

Reliable evidence regarding the effect of female genital mutilation on obstetric outcome is scarce. Furthermore, most previous studies on this issue were small and not based on the most solid research methods, particularly with regard to perinatal outcomes. WHO therefore coordinated a study¹ in hospitals in 2001–2003 of the ways in which different types of female genital mutilation affect birth outcomes.

Study design and sample

Twenty-eight obstetric centres in six African countries (Burkina Faso, Ghana, Kenya, Nigeria, Senegal and Sudan) were chosen to provide an appropriate diversity of types of female genital mutilation. The centres varied from relatively isolated rural hospitals to teaching hospitals in capital cities.

A total of 28 393 women were recruited who attended one of the hospitals for a singleton² delivery, and who were examined before delivery to ascertain whether they had undergone genital mutilation. Their type of genital mutilation was classified by the WHO classification system: type I, removal of the prepuce and/or clitoris; type II, removal of clitoris and labia minora; and type III, removal of part or all of the external genitalia with stitching or narrowing of the vaginal opening.

The women and their infants were followed throughout delivery until discharge of the mother from hospital.

Major findings

Of the women studied, 25% had not undergone genital mutilation, 24% had undergone type I, 27% type II and 23% type III. As expected, the distribution of type varied according to the country, obstetric centre and background characteristics. Overall, 6% of the women had to have a caesarean section, and 7% of vaginal deliveries were complicated by postpartum blood loss of 500 ml or more.

Effects of female genital mutilation on maternal health

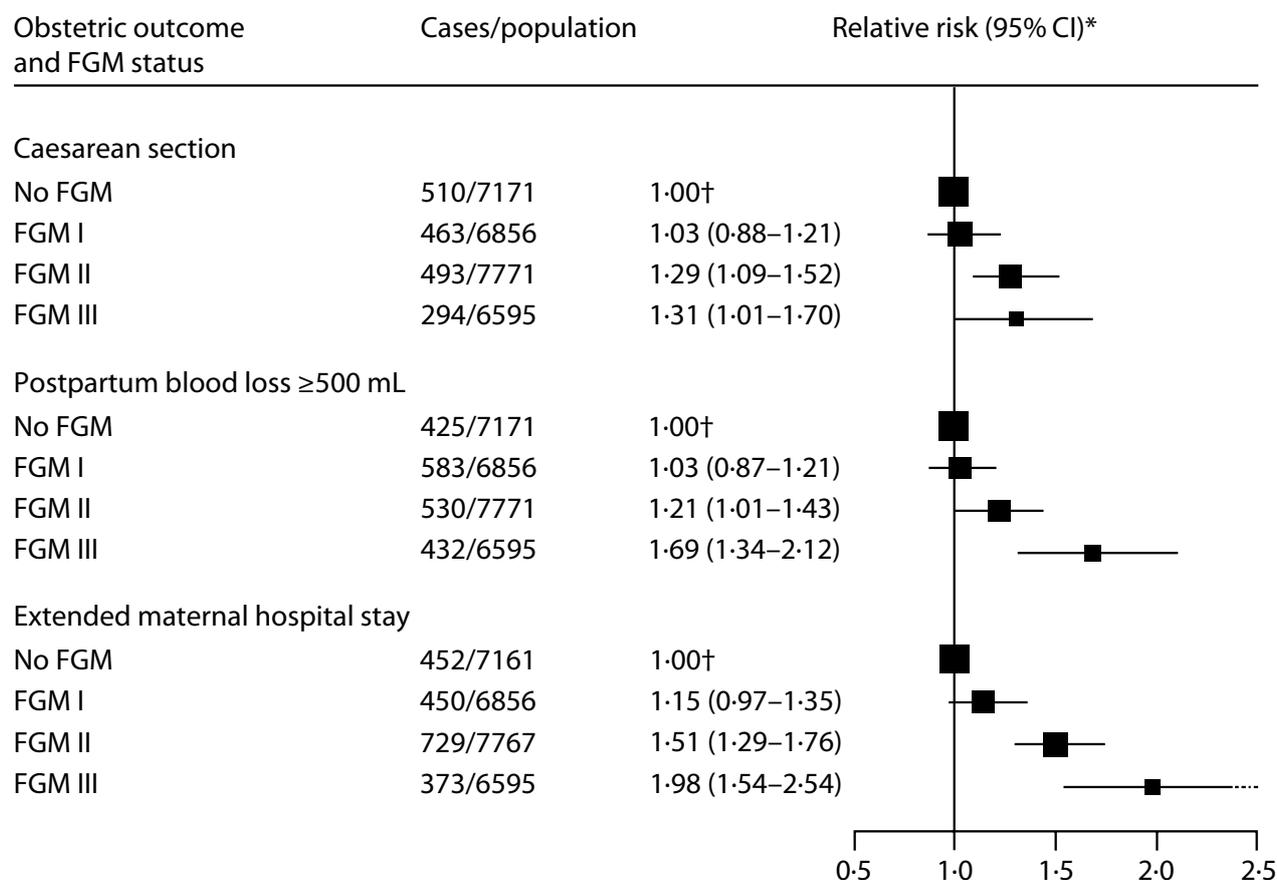
The deliveries of women who had undergone genital mutilation were significantly more likely to be complicated by caesarean section, postpartum haemorrhage and prolonged maternal hospitalization than those of women who had not. Women who had undergone the most serious form of genital mutilation (type III) had a 30% higher risk for delivery by caesarean section than those who had not had genital mutilation. Similarly, women with type III mutilation had a 70% higher risk of postpartum haemorrhage than women who had not undergone genital mutilation.



¹ WHO study group on female genital mutilation and obstetric outcome. Female genital mutilation and obstetric outcome: WHO collaborative prospective study in six African countries. *The Lancet* 2006;367:1835–1841.

² Pregnancy with one fetus only.

Relative risk of adverse maternal outcomes in women with various types of FGM compared to women without FGM



* Adjusted for study centre, maternal age, parity, education, socioeconomic status, urban/rural residence, time taken to get to hospital, height and antenatal care.

† Reference group; separate models were used for no FGM vs FGM I, no FGM vs FGM II and no FGM vs FGM III.

The proportion of women delivering for the first time who required an episiotomy ranged from 41% of those who had not undergone genital mutilation to 88% of those who had undergone type III. Among women who had had previous deliveries, the proportions were 14% and 61%, respectively.

Effects of female genital mutilation on infants

The rates of infant resuscitation and perinatal death were higher among infants born to women who had undergone genital mutilation than among those born to mothers who had not, and the severity of the adverse outcomes increased with the severity of female genital mutilation.

Thus, the rate of resuscitation was 66% higher for infants of women who had undergone type III mutilation than for those who had no female genital mutilation. The death rates among infants during and immediately after birth were higher for those born to mothers with genital mutilation than those without, being 15% higher for women with type I, 32% higher for those with type II and 55% higher for those with type III.

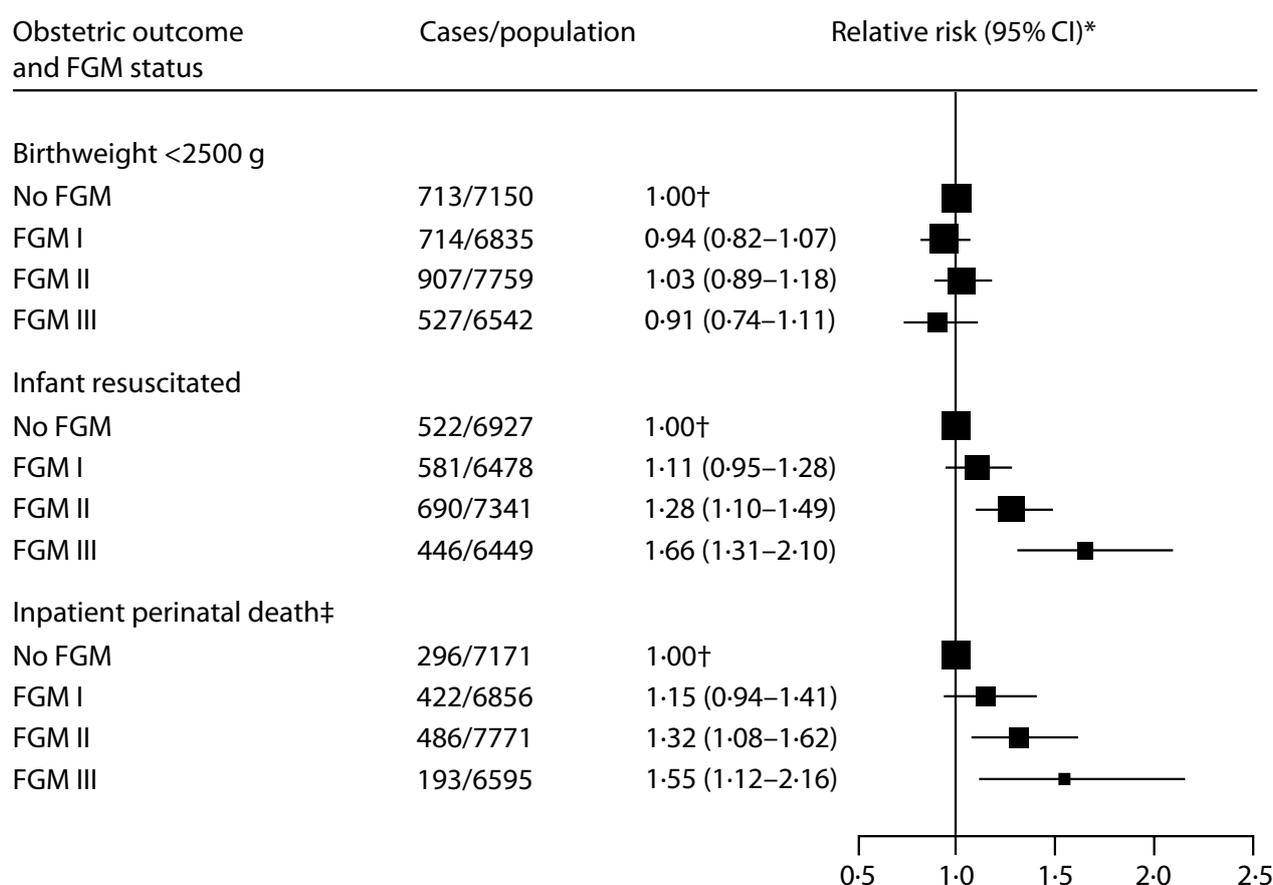
Conclusions and policy recommendations

This study, the largest conducted so far of the long-term adverse effects of female genital mutilation, shows that this practice is a risk factor for both the woman and her

infant at the time of delivery. The study estimated that, at the study sites, an additional one to two infants per 100 deliveries die as a result of female genital mutilation. For the majority of women with genital mutilation who deliver outside the hospital or obstetric setting, the consequences are expected to be even more severe.

The finding that female genital mutilation is a risk factor for both women and infants should be taken into consideration in antenatal care and birth plan preparations. For women with type III genital mutilation, this should include routine defibulation at an early stage of delivery or, preferably, prior to pregnancy and delivery, as described in

Relative risk of adverse infant outcomes in deliveries to women with various types of FGM compared to women without FGM



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† Reference group; separate models were used for no FGM vs FGM I, no FGM vs FGM II and no FGM vs FGM III.

‡ Infants who were stillborn or died while their mother was an inpatient.

WHO guidelines³. To support both pre- and post-service training of health professionals in delivery care for women who have undergone genital mutilation, WHO is working on an electronic update and expansion of these guidelines, including video instructions of procedures for best management.

Messages about the adverse health effects of female genital mutilation should be in-

corporated into all efforts to combat the practice and presented to practising communities.

Further research is needed on the immediate and long-term psychological effects of birth complications in women who have undergone genital mutilation and the need for additional care during delivery.

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³. Management of pregnancy, childbirth and the postpartum period in the presence of female genital mutilation. Report of a WHO technical consultation Geneva, 15–17 October 1997. Geneva, World Health Organization, 1997.

Female genital mutilation. Integrating the prevention and the management of the health complications into the curricula of nursing and midwifery. A student's manual. Geneva, World Health Organization, 2001.

Female genital mutilation. Integrating the prevention and the management of the health complications into the curricula of nursing and midwifery. A teacher's guide. Geneva, World Health Organization, 2001.