acts of sexual abuse, of which genital mutilation is a gross example.

In addition, they state that "genital mutilation differs from other forms of child abuse in that it is done with the best intentions for the future welfare of the child." This represents another collusion with the abusive system: there is no benefit to the child. The only people to benefit are the oppressors who wield their power within that particular culture.

The authors seem to dismiss the importance of resulting psychological trauma. In my research on post-traumatic stress disorder in women who had undergone obstetric or gynaecological procedures I found that women could be severely traumatised psychologically by painful, mutilating vaginal procedures that were carried out without clear consent in an unsympathetic environment.¹ Obstetric and gynaecological procedures are an accepted form of medical practice in Britain that women are taught to expect, yet women may still develop post-traumatic stress disorder as a result of their "culturally accepted" experiences.

Black and DeBelle casually refer to "male circumcision" as if it is benign. It is also medically unjustifiable genital mutilation, which is sanctioned by a culture purporting to be civilised.^{4,5}

It is time that genital mutilation was banned completely and that the medical profession faced up to its collusion in the harming of patients.

JANET MENAGE
General practitioner

Holbrooks Medical Centre,
Coventry

1 Black JA, DeBelle GD. Female genital mutilation in Britain. *BMJ* 1995;310:1590-4. (17 June.)

2 Miller A. *Banished knowledge: facing childhood injuries*. London: Virago, 1991.

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4 De Castella H. Prepuceplasty: an alternative to circumcision. *Ann R Coll Surg Engl* 1994;76:257-8.

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*As well as the three letters here we received five others. Two agreed with Janet Menage that male circumcision is also genital mutilation of a child without consent; another agreed with Elspeth Webb's anthropological analysis; a fourth contained an account of a 10 year old girl who bled to death after being circumcised in Egypt, where, according to the correspondent, 85% of all women are circumcised; and the fifth was a request for information, which has been passed to the Royal College of Obstetrics and Gynaecology.—EDITOR

Dangers of cocaine and adrenaline paste

Exceeding the recommended dose may have serious sequelae

EDITOR,—K E A Nicholson and J E G Rogers report serious complications associated with the use of topical cocaine with adrenaline,¹ but they draw inappropriate conclusions about the evidence they present and fail adequately to emphasise that the recommended doses and concentrations were exceeded.^{2,3} It is perhaps not surprising that serious sequelae may occur under these circumstances.

We are surprised that Nicholson and Rogers feel able to conclude from their three cases that it was the combination of cocaine and adrenaline that is responsible for the complications they observed; this is an unreasonable assumption. The randomised trial they quote showed that the addition of 1/1000 adrenaline to a 10% solution of cocaine was generally associated with significantly lower

plasma cocaine concentrations than were seen with cocaine alone and that the combination of the two drugs was not associated with a change in cardiovascular variables.⁴

The fact that this combination of the two drugs is potentially hazardous is an important message. The current recommendations in the *British National Formulary*² are accepted by the British Association of Otorhinolaryngologists—Head and Neck Surgeons. There seems to be little evidence that these recommendations are inappropriate.

MARTIN BURTON
Senior registrar in otolaryngology

RICHARD MARKS
Consultant anaesthetist

Barnet General Hospital,
Barnet,
Herts EN5 3DJ

1 Nicholson KEA, Rogers JEG. Cocaine and adrenaline paste: a fatal combination? *BMJ* 1995;311:250-1. (22 July.)

2 BMA and Royal Pharmaceutical Society of Great Britain. *British national formulary* No 29. London: BMA, RPSGB, 1995.

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4 Bromley L, Hayward A. Cocaine absorption from the nasal mucosa. *Anaesthesia* 1988;43:365-8.

Accurate measurement of dose and patience are important

EDITOR,—K E A Nicholson and J E G Rogers's lesson of the week about arrhythmias associated with the use of cocaine and adrenaline paste¹ is bound to fuel the controversy surrounding the use of these two drugs in sinonasal surgery. It is unclear from their report whether the overdose of cocaine was intentional or inadvertent: all three patients reported on received two to three times the maximum recommended dose of cocaine for their weight. With no evidence of similar complications when cocaine is used in recommended doses, to abandon this drug combination in all forms seems an overreaction. Recommended maximum doses surely have a purpose. Overdose of almost any anaesthetic drug will result in death; this does not result in a generalised call for withdrawal or the drug, nor should it.

The volume of cocaine paste can be measured with a 2 ml syringe; this avoids inadvertent overdose. In at least two of the cases reported, arrhythmia occurred after nasal instruments were applied. This suggests an inadequate period between local application of the paste and the start of the operation.

We suggest the following recommendations for the use of cocaine and adrenaline paste: use less concentrated (10%) paste; use a 2 ml syringe to measure the volume of the paste; do not exceed the stated maximum dose per kg; and allow adequate time for anaesthesia to occur. These steps will at least enable proper evaluation of any cardiac event.

Although we do not use cocaine and adrenaline paste, we routinely use a solution of both drugs for patients undergoing functional endoscopic sinus surgery. Over the past four years we have treated over 400 patients without adverse effects, using up to 20 ml of 0.625% cocaine, 0.0625% ephedrine, and 1/20 000 adrenaline instilled into the nose with the patient in a head down, supine position for 10 minutes after general anaesthesia has been established. This works well, resulting in excellent decongestion and improved haemostasis, which render the procedure much safer.

Finally, although "nasal surgery is rarely life saving," sinus surgery may prevent the development of serious complications, such as blindness, meningitis, and the formation of intracranial abscesses. Endoscopic procedures on the sinuses require adequate visualisation so that important structures, including the dura, orbits, optic nerves, and internal carotid arteries, are not endangered. To misquote the authors: the complications of sinusitis may be life threatening in patients who are otherwise young and fit. The disadvantages

of correct doses of local decongestion must be substantial to justify the increased risk that surgery without it would entail.

PETER WILLIAMSON
Registrar in ear, nose, and throat
ROBERT SLACK
Consultant ear, nose, and throat surgeon

Royal United Hospital,
Bath BA1 3NG

1 Nicholson KEA, Rogers JEG. Cocaine and adrenaline paste: a fatal combination? *BMJ* 1995;311:250-1. (22 July.)

Combination is still widely used

EDITOR,—The use of cocaine and adrenaline paste is a controversial issue among otolaryngologists.¹ In 1991 the British Association of Otolaryngologists—Head and Neck Surgeons surveyed all consultant surgeons who were members and found that 63.5% used cocaine without adrenaline, 19.5% used cocaine and adrenaline, and 17% used cocaine with and without adrenaline.² Of the 312 who used cocaine, 76 had changed their method of using it since 1986, generally because of concern about safety. Six deaths were recorded in the report.

The *British National Formulary* states that "cocaine is still used in otolaryngology and is applied to the nasal mucosa in concentrations of 4 to 10% (40-100 mg/ml). The maximum total dose recommended for application to the nasal mucosa in fit adults is a total of 1.5 mg/kg, which is equivalent to a total topical dose of approximately 100 mg for an adult male. It should be used only by those skilled in the precautions needed to minimise absorption and the consequent risk of arrhythmias. Although cocaine interacts with other drugs liable to induce arrhythmias, including adrenaline, some otolaryngologists consider that combined use of topical cocaine with topical adrenaline (in the form of a paste or a solution) improves the operative field and may possibly reduce absorption."³

My practice is to use cocaine paste, which is given in the anaesthetic room, and then to inject the nasal mucosa with 1/80 000 adrenaline in the operating room at the beginning of surgery. There have been no documented problems with this method of sequential administration.

I agree with K E A Nicholson and J E G Rogers¹ that nasal surgery is rarely life saving and that a heightened awareness of the possible complications and interactions of the drugs being given is to be encouraged.

R W R FARRELL
Senior registrar

Department of Otolaryngology,
Royal Free Hospital NHS Trust,
London NW3 2QG

1 Nicholson KEA, Rogers JEG. Cocaine and adrenaline paste: a fatal combination? *BMJ* 1995;311:250-1. (22 July.)

2 British Association of Otolaryngologists—Head and Neck Surgeons, Royal College of Surgeons of England. Questionnaire on the use of cocaine. *BAOL Newsletter* 1991;11-3.

3 BMA and Royal Pharmaceutical Society of Great Britain. *British national formulary* No 29. London: BMA, RPSGB, 1995:507.

Other aspects of anaesthetic technique may have added to danger

EDITOR,—We take issue with K E A Nicholson and J E G Rogers's conclusions regarding use of the combination of cocaine paste with adrenaline for preparing the nose before nasal surgery.¹ We agree that the recommended doses should not be exceeded, but the case for removing adrenaline from the mixture has not been made.

In cases 1 and 2 both children were given pre-medication of oral atropine, and the endogenous catecholamine concentration would therefore have been high because of anxiety. Anaesthesia was extremely light, and halothane, which predisposes to arrhythmias when used in combination with adrenaline, was used in both cases. The papavere-