

Passive smoking is easier to control (by legislation and regulation) than active addictive smoking. The public health implications of the available evidence warrant continued efforts to reduce the public's exposure to other people's tobacco smoke.

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## Does treatment for cervical intraepithelial neoplasia affect fertility and pregnancy?

### Little to worry about

One of the main advantages of an increasingly conservative approach to managing cervical intraepithelial neoplasia, and even microinvasive carcinoma of the cervix, is that the potential for child bearing is maintained. But does such treatment compromise either fertility or the outcome of a subsequent pregnancy?

There are three potential causes of infertility after cone biopsy or destructive methods of treatment. The first is cervical stenosis, which would have to be complete to prevent sperm from entering the endometrial cavity and is uncommon.<sup>1,2</sup> Luesley *et al*, however, reported symptomatic cervical stenosis in 8% of 915 patients, with 1.3% experiencing amenorrhoea due to haematometra.<sup>3</sup> This complication seems to be a particular risk if the cone biopsy is performed during postpartum amenorrhoea.<sup>4</sup> A second, somewhat more common, problem is secondary infection at the site of treatment, which may occur in up to 10% of cases. Potentially these patients are at risk of developing ascending infection with resulting tubal damage, but no studies have documented this. Lastly, we have seen several patients who have had infertility problems, particularly after laser ablative treatment,

allegedly due to absence of cervical mucus. All treatment methods destroy many of the mucus secreting glands of the cervix, and such destruction may alter both the volume and the physical properties of cervical mucus. Nevertheless, there are no reports on mucus problems, or indeed on subsequent fertility, after laser treatment for cervical intraepithelial neoplasia. Weed *et al* postulated that altered mucus might be a problem after cryosurgery, but failed to prove it in a series of 412 patients.<sup>5</sup> They noted good spinnbarkeit and ferning in patients who were ovulating. In 30 patients treated by cryosurgery for cervical ectropion, who had normal cytological and colposcopic findings, Baram *et al* thought that this treatment improved the characteristics of cervical mucus.<sup>6</sup>

Most workers who have studied fertility after treatment of cervical intraepithelial neoplasia have assessed it by comparing the numbers of patients at risk of pregnancy with the number of pregnancies achieved<sup>7,9</sup>; others have compared the numbers of patients becoming pregnant with those complaining of infertility.<sup>10</sup> None have found any effect of treatment on subsequent fertility.

Complications of pregnancy after treatment of cervical intraepithelial neoplasia are more familiar, though these too are uncommon and seem to be confined largely to patients who have undergone cervical conisation. Such problems may include cervical dystocia, leading to caesarean section.<sup>1</sup> The incidence of second trimester abortion also seems to be increased after cervical conisation: the incidence was 15% in 88 pregnancies in 77 women.<sup>11</sup> Among 66 patients proceeding beyond 28 weeks preterm delivery occurred in 12, with birth weights of under 2500 g in 14.<sup>12</sup> The mean duration of labour was 8.5 hours for 55 multigravid patients who had undergone cone biopsy compared with 6.3 hours in 205 controls. Nevertheless, in their review of published studies, which they criticised for lack of detail about patients and limited use of controls, Weber and Obel concluded that conisation did not lead to an increased frequency of spontaneous abortion or to increased perinatal mortality.<sup>13</sup> Likewise, Buller and Jones concluded that spontaneous abortion rates, premature delivery, and caesarean section rates were not significantly altered by cervical conisation in 166 patients who were followed up out of an original series of 314.<sup>10</sup>

The findings for cryosurgery and laser vaporisation for cervical intraepithelial neoplasia seem even more reassuring. In two series of patients who underwent cryosurgery the authors found no adverse effect on the subsequent outcome of pregnancy,<sup>14,15</sup> and similar conclusions came from two series of patients treated by laser vaporisation.<sup>16,17</sup> Fertility has not been evaluated after loop diathermy excision of the cervical transformation zone, but Prendiville *et al* reported on two women treated at six weeks of pregnancy who had no subsequent complications.<sup>18</sup>

Patients undergoing conservative treatment for cervical intraepithelial neoplasia can therefore be largely reassured about their subsequent fertility and outcome of pregnancy, particularly if the colposcopic findings satisfy the requirements for destructive treatment techniques. Patients undergoing cone biopsy of the cervix may, however, have a slightly increased risk of complications in a subsequent pregnancy.

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## Male rape

### Victims need sensitive management

Sexual assault of men has long been recognised as a means of humiliating opponents by conquering soldiers,<sup>1,2</sup> as a feature of sexual torture or aggression,<sup>3,4</sup> or as a sexual outlet in institutions where heterosexual activity is impossible.<sup>4</sup> There is, however, a reluctance to recognise that male sexual assault also occurs in ordinary societies.

This reluctance stems from three factors. Firstly, rape is popularly—and wrongly—regarded as a sexually motivated crime in which a highly sexed man is tempted by a vulnerable, attractively dressed woman.<sup>5</sup> Although rape is a sexual act, it is motivated by a wish to dominate and degrade the victim.<sup>6</sup> Most rapists have alternative outlets for sexual gratification, many take little notice of their victim's physical attributes, and some may experience sexual dysfunction during the assault.<sup>7,9</sup> Secondly, men are considered strong enough to defend themselves against a sexual assault. Strength unfortunately bears little relation to the ability to resist. Both men and women are likely to react to sudden and extreme personal threat with frozen helplessness.<sup>10,11</sup> Particularly in attacks on men, assailants may also exploit a position of trust to gain a psychological advantage.<sup>12</sup> Thirdly, in English law the term "rape" is restricted to forced penile penetration of the vagina and thus cannot apply to sexual assaults against men. Forced anal penetration of a man is considered to be non-consensual buggery and carries a lesser penalty.

Forced penetrative sexual assault of men has many parallels with rape of women in the circumstances of the offence and reactions of victims.<sup>6,12-16</sup> Both heterosexual and homosexual men may be assaulted, although attacks against homosexuals are proportionately more common and may be a thinly disguised form of "queer bashing."<sup>12,16,17</sup> Less is known about the sexuality of assailants, but often they are predominantly heterosexual.<sup>6,12</sup> Anal or oral penetration is common and is sometimes accompanied by physical battery.<sup>12,16</sup> Sexual

assault of men by women is rare and the victims are usually men who are peculiarly vulnerable psychologically or physically.<sup>18</sup>

The rape trauma syndrome, in which phobic anxiety, depression, somatic complaints, and behavioural changes follow from an assault, occurs in both men and women.<sup>12,19</sup> Men often develop sexual dysfunction and ambivalence about their sexual identity. Homosexuals may be disgusted by their own sexuality, believing that it was a factor in attracting the assailant, while heterosexuals may consider their sexual identity to have been challenged: that a man can be overpowered and penetrated makes him less than a man. There is little evidence, however, that sexual assault of heterosexual men has any lasting influence on their sexual orientation.<sup>12</sup>

It is impossible to estimate the prevalence of male rape. Sexual assault of women often goes unreported,<sup>5,20</sup> and men seem even more reluctant to report it. Many heterosexuals fear that they will be perceived as homosexual, and homosexuals regard the police as antihomosexual.<sup>7,12</sup> In the United States, where many states have gender blind rape laws, reported rapes of men contributed 5-10% of total rapes reported.<sup>21</sup> The number of cases of male rape has also increased in the United States, one study reporting an increase from none to 10% in three years in the late 1970s.<sup>13</sup>

Men who present with genital and perineal injuries should be questioned sensitively about the possibility of sexual assault.<sup>22</sup> Those who do report the assault require careful assessment with a view to legal proceedings.<sup>16</sup> Although there is a lack of consensus on the need for HIV testing of women victims,<sup>23,24</sup> the anal trauma that occurs in male rape may make transmission of HIV more likely, so men should be screened for HIV.<sup>16</sup> Doctors unfamiliar with examining rape victims must not hesitate to take expert guidance. Psychological support and counselling should be provided, with psychiatric referral in cases of protracted or severe emotional difficulties.

Survivors is the principal voluntary organisation set up in Britain exclusively to counsel men who have been assaulted.\* Although some victim support schemes offer help to male victims, there is a great need for the specialised rape services already catering for women to include men as well. A well publicised, expert service could do much to overcome the stigma of male rape and the reluctance of men to report it. Finally, the English law needs to recognise the seriousness of sexual attacks that do not come within the current narrow definitions of rape—and which affect both men and women.<sup>9,25</sup>

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