needed to answer more precisely the question that is still very open. Useful? Yes, probably; but for whom?

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Psychosexual implications of gynaecological cancer

Talk about it

Sexual dysfunction is common among adults with cancer,[1] and women with gynaecological cancer are no exception.[2 3] Much of this is easily explained, given that most patients with cancer experience anxiety or depression after diagnosis and during treatment. To this may be added other aspects of their condition or treatment that make sex difficult—chronic fatigue, nausea, diarrhoea, altered genital appearance or loss of the vagina, tender scars, pain, malodour, alopecia, nervousness about breakdown of the wound, embarrassment about stomas, or advanced disease. What is less clear is why, after "successful" treatment, some women continue to have sexual difficulties.

Most of the organic causes of this problem relate to treatments that alter the genital area. Radical vulvectomy removes the clitoris (although orgasm may still occur[4]), renders the tissues tight and devoid of fat "cushioning," and may result in prolapse of the posterior vaginal wall or vaginal stenosis. Radical hysterectomy shortens the vagina, and pelvic exenteration removes it entirely. Radiotherapy renders the vaginal mucosa dry, easily traumatised, stenosed, and less distensible; to this is added the effect of ovarian failure, which in itself causes substantial sexual dysfunction.[5] Both surgery and radiotherapy may also damage sacral nerves[6] and cause neurological changes to fine sensory perception in the tissues of the genital area, thus altering sexual sensation and responsiveness.[4]

What makes the sexual dysfunction so difficult to treat, however, is its psychogenic component. Surgery to the breasts and genitals threatens female identity. The disruption of body image, particularly from the mutilating surgery of radical vulvectomy and exenteration,[1 7 8] results in many women never resuming intercourse.[3 8] Women with cervical cancer become infertile and increasingly feel guilty that their disease results from their past sexual behaviour.[2 3 8] Somatisation aggravates their anxiety, as every symptom—vaginal bleeding, discharge, pain—is attributed to a recurrence of the cancer; women may fear that the disease can be transmitted to their male sexual partner.[3 8]

In a study that we recently carried out with colleagues only one in four previously sexually active women had no sexual dysfunction after radical vulvectomy, radical hysterectomy, or exenteration.[3] In three quarters sexual difficulties persisted for more than six months postoperatively; 15% never resumed intercourse. Lack of desire was the commonest problem, and the factors that increased the likelihood of sexual dysfunction or failure to resume intercourse were age over 65, short length of marriage or marital disharmony before the surgery, and radiotherapy (associated with sexual difficulties in 80% of women under 50). Widows and women not currently in a sexual relationship (particularly young and childless women) were very anxious about or refused to contemplate initiating a future sexual relationship.

Knowledge about such sexual dysfunction permits two treatment strategies. Firstly, in some cases gynaecological cancer can be managed so as to minimise physical mutilation and preserve ovarian function. We do not recommend radiotherapy for women under 50 if radical hysterectomy will produce equally good results; even an intracavitary source without external beam radiotherapy destroys ovarian function.[9]

Women with microinvasive cervical cancer <3 mm who wish to conserve their fertility may be safely treated by therapeutic cone biopsy.[10] Should radiotherapy be necessary for women with cervical cancer they should be instructed to apply oestrogen cream to the vagina during treatment, with rigorous vaginal dilatation and Kegel pelvic floor exercises to promote blood flow to the area. Superficial microinvasive vulval carcinoma may be treated by wide local excision, and even radical vulvectomy may be modified from the classic "butterfly" incision to produce a more aesthetic and comfortable result. In patients who have anterior exenteration the use of part of the ileum and caecum to recreate the bladder and vagina is increasingly successful.[11]

Secondly, dialogue about sexual matters with each follow up visit is essential, although this is rarely initiated by the patient, and often not by her doctor. Sexual counselling is effective in reducing long term morbidity,[12] even for those who have had exenteration. It needs to begin preoperatively, with the sexual partner present, and involves educating the patient about her anatomy and discussing sexual techniques and alternatives (for example, orogenital sex or mutual masturbation), which may be needed as permanent substitutes

for coitus in some cases. These issues may be raised with women not currently in a sexual relationship, whose anxieties about their sexual abilities may lead them to withdraw from future sexual encounters. Unsurprisingly, patients with limited sexual knowledge and techniques usually suffer more difficulties after surgery. If the psychological aspects of the sexual relationship have previously been good, sexual rehabilitation is possible despite physical problems with arousal.[4] Techniques to desensitise the couple to the postoperative appearance of a radical vulvectomy can emphasise kissing and affectionate caressing, with intercourse being avoided initially. Many women find that masturbation, to see whether orgasm is still possible, helps "prove" their sexual intactness but are too embarrassed to ask whether this is allowed.

The problem of sexual dysfunction in women with pelvic malignancy will increase as more younger women develop cervical cancer (and perhaps vulval cancer) and as more patients with recurrence or vaginal carcinoma are considered appropriate for exenterative procedures. Partners are also at risk of sexual maladaptation, either through ignorance (for example, through thinking that they can catch the cancer or be harmed by radiotherapy) or through an inability to accept the altered appearance of their spouse. Half the women under 50 in our study believed that more information on sexual matters should have been given to them and their partners preoperatively.[3] Counselling can be undertaken by a nurse specialist, or other appropriately trained person, and gynaecological oncology units should consider introducing such services. In Britain nurse specialists are available in London (St Bartholomew's, St Mary's, and the Royal Marsden Hospitals), Sheffield, and Newcastle upon Tyne.

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Hepatitis B and medical student admission

No reason to exclude applicants who are e antigen positive from medical school

Recently published guidelines from the Department of Health have focused attention on protecting staff and patients from hepatitis B virus.[1] Pre-employment screening of staff who undertake invasive procedures (such as surgeons and obstetricians) is being implemented.

This week the Committee of Vice-Chancellors and Principals has issued guidelines for universities on the fitness of students to practise medicine and dentistry in relation to hepatitis B virus. The guidelines recommend that all applicants for medical and dental courses should be screened for the virus and antibody before entry to medical and dental schools and be immunised where necessary. Students accepted for such courses will have to provide certificates of immunisation and immunity on registration. Students who are virus carriers and infectious will be excluded from the clinical stages of their courses. They will be counselled and advised on the implications for their future careers and on transfers to appropriate alternative courses.[2]

This goes too far. All medical students should certainly be routinely immunised against hepatitis B virus before clinical contact for their own protection. But given that the Department of Health's guidelines do not consider that venepuncture is invasive, what risk do infected students pose to patients?

About one in 10 medical graduates will enter "invasive" specialties; for most of the rest being hepatitis B carriers will be irrelevant to their patients' safety. The course requirements for training have prompted the suggestion that students who test positive for the e antigen (and are therefore infectious) put patients at risk, although little hard evidence exists for this. If one accepts that students may pose avoidable risks to patients then infectious students need identifying. Two options exist: screening before or after acceptance by a medical school.

The likelihood of someone who is positive for hepatitis B virus and infectious being admitted to a British medical school is small. In Britain the prevalence of hepatitis B surface antigen among blood donors is around 1 in 1500[3]; perhaps one fifth of these people will test positive for the e antigen. About 1 in 5000 applicants will therefore be infectious. Rates of the spontaneous loss of e antigen are difficult to establish, being 7-20% a year in one series[4] and possibly lower in the general population. In addition, interferon produces seroconversion in up to 40% of patients.[5] Treatment lasts for three months and is compatible with a student continuing academic studies. At least one British medical student has been treated with interferon and has seroconverted and completed the clinical course.

For every two applicants to British medical schools only one is successful. Screening and vaccinating before acceptance therefore seems an expensive, low yield exercise. Instituting such a programme would raise the spectre of rejection on the basis of seropositivity, for which there is no justification.

Despite this, several advantages have been suggested for screening before acceptance. Firstly, kindness. Better to find out a teenager's hepatitis B virus status before admission to university than subsequently to dash his or her hopes of becoming, for example, a cardiac surgeon. If the consequences of testing positive for the e antigen are clearly explained before