



Royal College
of Nursing

Gynaecological cancer

Guidance for nursing staff

screening

endometrium

ovary

smear

radiotherapy

hysterectomy



Royal College
of Nursing

This guidance publication provides information on:

- ◆ cancer of the cervix
- ◆ cancer of the endometrium
- ◆ cancer of the ovary
- ◆ cancer of the vulva.

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Disclaimer

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Gynaecological cancer

Guidance for nursing staff

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1

Background

Gynaecological cancer: information and guidance for nurses was first published by the RCN in March 1999. In 2000 the NHS Cancer Plan was published. This represented government strategy for investment and reform in the Health Service aimed at reducing the death rate and improving quality of life for patients with cancer. With UK government devolution each of the four countries has set about producing strategy documents for cancer health improvement. The Clinical Outcomes Guidance (COG) series sets out recommendations in relation to site-specific cancers which include gynaecological cancer.

The National Institute for Health and Clinical Excellence (NICE) and the National Cancer Research Institute and Network (NCRI and NCRN) have all been working to improve and standardise patient care and cancer research.

It has been a dynamic time in gynaecological cancer nursing, with a sharp increase in the number of specialist nurses and nurse practitioners in the field. Nurses have been taking on extended roles like colposcopy, hysteroscopy and symptom control in specialist environments. The management of women with gynaecological cancer has been improved with multidisciplinary team (MDT) working and specialist referral.

The RCN Gynaecology Nursing Forum steering committee felt it was time to update the information contained within this document.

2

Cancer of the cervix

Incidence

In the United Kingdom approximately 3,000 women are diagnosed as having cervical cancer each year, just two per cent of new cancer cases (Cancer Research UK, 2005). The incidence of and mortality from cancer of the cervix is falling, due largely, it is thought, to the cervical cancer screening programme (ONS, 2005).

Anatomy

The cervix forms the lower part of the uterus and lies partly in the upper vagina and partly in the retroperitoneal space, behind the bladder and in front of the rectum. The squamous epithelium that lines the vagina and outer part of the cervix meets the columnar epithelium of the uterine cavity at the squamocolumnar junction. With puberty the cervix grows and exposes the thin glandular epithelium of the endocervical canal, which is gradually replaced by squamous epithelium. This part of the cervix is known as the transformation zone and is the site of most cervical cancer.

Aetiology

The exact aetiology of cervical cancer, as with many other forms of cancer, remains unknown. Cancer of the cervix can occur in any woman but epidemiological studies have suggested some risk factors. These include:

- ◆ infective agents – HPV (human papilloma virus) of various types has been associated with cervical neoplasia, although HPV alone is unlikely to be sufficient to induce the cancer. The exact role of HPV remains unclear. Women with HIV (human immunodeficiency virus) are at greater risk of developing the disease. Cervical cancer has been designated an AIDS-defining illness
- ◆ sexual behaviour – women who commenced sexual intercourse before the age of 20 and those who have had many partners appear to be

at greater risk of developing the disease (Sasco, 2002)

- ◆ smoking
- ◆ nulliparity
- ◆ immunosuppression.

Pathology

Histologically 80 to 90 per cent of cervical tumours are squamous and 10 to 20 per cent adenocarcinoma. The remainder are made up of other types including adenosquamous, glassy cell, sarcoma and melanoma.

Screening

Most cancer of the cervix appears to go through a pre-malignant phase, called CIN (cervical intraepithelial neoplasia). CIN can be detected by taking a sample of cells from the cervix for cytological examination. Any abnormality in a smear may indicate the presence of CIN which can only be confirmed on histology. This can be done with a pap smear or with liquid-based cytology (LBC). Cytology has proved to be an effective form of screening. NICE (2003) has recommended that LBC is used as the primary means of processing samples. CIN is comparatively easy to treat successfully.

Spread

Cervical cancer spreads predominantly by direct invasion of the vagina, parametria, uterus, bladder and rectum. Indirect spread occurs via the lymphatic system to the pelvic then para-aortic nodes. Bloodstream metastasis is less common but sites include liver, lung and bone.

Signs and symptoms

Cervical cancer is usually asymptomatic in the early stages. Early symptoms may include post-coital and intermenstrual bleeding and offensive vaginal discharge (Hughes, 2001). Symptoms of advance disease may include back pain, dysuria, haematuria, rectal bleeding and lower limb lymphoedema.

Staging

The staging of cervical cancer is performed clinically rather than surgically. Staging is based upon physical examination (ideally examination under anaesthetic), chest X-ray, colposcopy, cystoscopy, proctosigmoidoscopy, and IVU or other radiological imaging of the renal tract. More units are also making use of magnetic resource imaging, lymphangiography and ultrasonography (De Olivera and Mata, 2002).

FIGO (International Federation of Gynecology and Obstetrics) Carcinoma of the Cervix Uteri – Staging:

FIGO Stages	TNM Categories
Primary tumour cannot be assessed	TX
No evidence of primary tumour	T0
0 Carcinoma in situ (preinvasive carcinoma)	Tis
I Cervical carcinoma confined to uterus (extension to corpus should be disregarded)	T1
Ia Invasive carcinoma diagnosed only by microscopy. All macroscopically visible lesions – even with superficial invasion – are Stage IB/T1b	T1a
Ia1 Stromal invasion no greater than 3.0 mm in depth and 7.0 mm or less in horizontal spread	T1a1
Ia2 Stromal invasion more than 3.0 mm and not more than 5.0 mm with a horizontal spread 7.0 mm or less ^a	T1a2
Ib Clinically visible lesion confined to the cervix or microscopic lesion greater than IA2/T1a2	T1b
Ib1 Clinically visible lesion 4.0 cm or less in greatest dimension	T1b1
Ib2 Clinically visible lesion more than 4 cm in greatest dimension	T1b2
II Tumour invades beyond the uterus but not to pelvic wall or to lower third of the vagina	T2
IIa Without parametrial invasion	T2a
IIb With parametrial invasion	T2b
III Tumour extends to pelvic wall and/or involves lower third of vagina and/or causes hydronephrosis or non-functioning kidney	T3
IIIa Tumour involves lower third of vagina no extension to pelvic wall	T3a
IIIb Tumour extends to pelvic wall and/or causes hydronephrosis or non-functioning kidney	T3b
IVa Tumour invades <i>mucosa</i> of bladder or rectum and/or extends beyond true pelvis ^b	T4
IVb Distant metastasis	M1

^a Note: The depth of invasion should not be more than 5 mm taken from the base of the epithelium, either surface or glandular, from which it originates. The depth of invasion is defined as the measurement of the tumour from the epithelial-stromal junction of the adjacent most superficial epithelial papilla to the deepest point of invasion. Vascular space involvement

^b Note: Approximate five-year survival rates are: Stage Ia 95 per cent, stage Ib 80 per cent, stage IIa 80 per cent, stage IIb 65 per cent, stage III 40 per cent, stage IV 25 per cent (Cancer Research UK, 2005)

(FIGO, 2000)

Treatments

The definitive treatment for invasive cancer of the cervix involves either surgery, chemoradiotherapy or a combination of both. The choice of treatment will depend on the stage, size and histology of the tumour, and the fitness of the patient. In general, comparable survival rates are seen with both treatment modalities for stage I disease (Blake et al., 1998).

Surgery has advantages over radiotherapy in early disease, particularly for the younger patient. These advantages include shorter treatment time, preservation of ovarian function, higher patient acceptance and reduced sexual morbidity. The standard treatment for stage Ib cancer of the cervix is either a radical hysterectomy or chemoradiation. Both treatments have significant morbidity and result in the loss of fertility (Lamb, 2000). Fertility-sparing surgery such as radical trachelectomy (removal of the cervix and parametrium) can be offered in specialist centres (Shepherd et al., 2001). The surgical procedure for stage Ib is most commonly a radical hysterectomy and pelvic lymphadenectomy (Wertheim's hysterectomy). The ovaries can be conserved in pre-menopausal women.

Chemoradiotherapy is more commonly the treatment of choice for women with more advanced disease, those with a poor prognostic factor, or those less fit for surgery. There are two main types of radiotherapy: external beam and intracavity treatment. A radical course of external beam radiotherapy usually lasts for four to six weeks, given daily for five days per week. Treatments schedules vary but in general both internal and external beam radiotherapy are used in conjunction to reach a potentially curative dose. Intracavity treatment involves the use of radiation delivered directly into the vaginal cavity.

In 2005 the Cochrane Collaboration reviewed all the research evidence on chemoradiation in the treatment of cervical cancer. Giving radiotherapy and chemotherapy at the same time gives the best chance of curing cervical cancer above stage Ib2 (Rose et al., 1999). Most side effects are temporary and manageable (Green et al., 2005). Chemotherapy can be used to palliate symptoms or reduce the size

of tumour and metastatic deposits prior to surgery or radiotherapy.

Nursing considerations

In all phases of the disease and treatment, quality of life can be affected physically, psychologically, socially, sexually and spiritually. Together with the complexities of managing all aspects of quality of life, specific consideration for care planning needs to be given to:

- ◆ fertility – consider options pre-treatment
- ◆ vaginal shortening and narrowing – especially with radiotherapy
- ◆ sexuality
- ◆ potential lymphoedema – preventive advice
- ◆ pelvic exenteration – is classified as anterior (removal of the bladder, vagina, cervix and uterus), posterior (removal of the rectum, vagina, cervix and uterus) or total exenteration where the bladder and rectum are removed en bloc with the uterus, cervix, vagina and the pelvic floor. Careful assessment of the patient's general condition and mental state is mandatory and the surgery should be accompanied by procedures that reconstruct and rehabilitate the urinary and genital tracts as completely and functionally as possible (Fotiou and Rodolakis, 2002).

Advanced disease

The symptoms of advanced disease need to be managed with consideration given to the woman as a whole within the framework of her family and friends. The most common problems of advancing cervical cancer include:

- ◆ pain can be difficult to control
- ◆ vaginal bleeding
- ◆ vaginal discharge – often offensive
- ◆ fistula formation/stoma formation
- ◆ difficulty in passing urine or faeces
- ◆ renal failure
- ◆ lymphoedema.

3

Cancer of the endometrium

Incidence

In the UK endometrial cancer is the second most common gynaecological cancer, with over 5,500 new cases per annum and over 1,000 deaths (ONS, 2005). About 5 per cent of endometrial cancer is familial, and the inheritance of a pre-disposing gene fault should be suspected in women with early age at onset. It is associated with hereditary non-polyposis colon cancer (HNPCC) and it occurs in 40 per cent of female gene carriers compared with a 44 per cent lifetime risk of bowel cancer. Gene carriers of HNPCC should report to the doctor any inter-menstrual or post-menstrual bleeding.

Anatomy

The uterus is divided into two parts: the body and the cervix. The walls of the uterus are composed of muscle called the myometrium, and the endometrium is the membrane that lines the body of the uterus. It is shed cyclically and renewed during the reproductive years, under the influence of the hormones, oestrogen and progesterone.

Aetiology

Hormonal influence on the lining of the womb appears to be an important factor in the development of endometrial cancer.

Risk factors include:

- ◆ late menopause
- ◆ nulliparity
- ◆ obesity
- ◆ unopposed oestrogen therapy
- ◆ polycystic ovary symptom.

Pathology

Endometrioid adenocarcinoma is the most common histological form of endometrial cancer.

Other types include adenocanthomas, papillary serous, clear cell and mixed mullerian.

Screening

There is no effective screening test available for uterine cancer. The majority of endometrial cancers present with post-menopausal bleeding. The older the woman, the higher the chances that the bleeding is due to a tumour. The most common early presentation is abnormal vaginal bleeding particularly, post-menopausal bleeding (Blake et al., 1998). Women over the age of 40 years with abnormal vaginal bleeding should be considered at risk, requiring investigation to exclude malignancy. A significant number of women with atypical hyperplasia will have, or will develop, endometrial cancer.

Other diagnostic tools will include; pelvic examination, blood tests, ultrasound, MRI scan, hysteroscopy and endometrial biopsy.

Spread

Direct spread of endometrial surface occurs before penetrating the muscle layer. The more deeply the tumour invades, the greater the likelihood of lymphatic or, less commonly, vascular involvement. Lymphatic spread to pelvic and para-aortic nodes is common with advancing disease. Metastatic involvement of the ovaries may occur but there may also be a concomitant ovarian tumour.

Signs and symptoms

- ◆ Abnormal vaginal bleeding – the majority of women with endometrial cancer are over 50, and 75 per cent of these women will have post-menopausal bleeding. Bleeding can present as intermenstrual, and about a third of younger women with endometrial cancer complain of regular but heavy menses.
- ◆ Vaginal discharge.
- ◆ Thickened endometrium.

There is often an absence of clinical signs in asymptomatic women, but on examination the uterus may be enlarged and blood may be visible in the vagina. A complete clinical assessment is required, which will include all the tests mentioned under screening.

Staging

FIGO (International Federation of Gynecology and Obstetrics) Carcinoma of the Corpus Uteri – Staging:

FIGO Stages	TNM Categories
Primary tumour cannot be assessed	TX
No evidence of primary tumour	T0
0 Carcinoma in situ (preinvasive carcinoma)	Tis
I Tumour confined to the corpus uteri	T1
Ia Tumour limited to endometrium	T1a
Ib Tumour invades up to less than half of myometrium	T1b
Ic Tumour invades to more than one half of myometrium	T1c
II Tumour invades cervix but does not extend beyond uterus	T2
IIa Endocervical glandular involvement only	T2a
IIb Cervical stromal invasion	T2b
III Local and/or regional spread as specified in IIIA, B, C	T3 and/or N1
IIIa Tumour involves serosa and/or adnexa (direct extension or metastasis) and/or cancer cells in ascites or peritoneal washings	T3a
IIIb Vaginal involvement (direct extension or metastasis)	T3b
IIIc Metastasis to pelvic and/or para-aortic lymph nodes	N1
IVa Tumour invades bladder mucosa and/or bowel <i>mucosa</i> ^a	T4
IVb Distant metastasis (excluding metastasis to vagina, pelvic serosa, or adnexa, including metastasis to intra-abdominal lymph nodes other than para-aortic and/or inguinal nodes)	M1

^a Note: The presence of bullous oedema is not sufficient evidence to classify a tumour as T4

(FIGO, 2000)

Approximate five-year survival rates are: stage I 70 per cent, stage II 55 per cent, stage III 30 per cent, stage IV 10 per cent. The overall survival rate is high because of the predominance of women with stage I disease. Staging reflects tumour volume: the greater the tumour volume, the poorer the prognosis (Schink et al., 1991). Many prognostic factors have been identified for endometrial cancer including:

- ◆ stage of disease
- ◆ depth of the myometrial invasion
- ◆ age at diagnosis
- ◆ type and size of the tumour.

Treatments

The optimum treatment for endometrial cancer depends upon the extent of invasion of the myometrium. Pelvic lymph node metastases are unlikely if cancer is confined to the endometrium or affects less than one third of the thickness of the wall of the uterus.

With the use of appropriate investigations it is now possible to assess the state of endometrial cancer prior to surgery as mentioned in screening and investigations.

Treatment options

Surgery – the primary treatment for stages I, II and III is a total abdominal hysterectomy and bilateral salpingo-oophorectomy (BSO). Many cancer centres in the UK are now offering laparoscopic hysterectomy and BSO especially for obese women.

Radiotherapy – mainly given as an adjunct to surgery in high risk disease. Radiotherapy may be external beam or internal brachytherapy or a combination of both.

Hormonal manipulation

Nursing considerations

As treatment for endometrial cancer usually involves surgery, the main general gynaecological issues are those of pre- and post-operative care. Specific consideration for care planning needs to be given to:

- ◆ pre-existing medical complaints
- ◆ wound care, especially in the obese
- ◆ induced menopause
- ◆ fertility
- ◆ sexuality – treatment-related side effects may affect sexual relationships.

All of the above have an effect on the woman's quality of life.

Many women who have treatment for endometrial cancer want more regular information about their disease and potential after-effects of treatment. The provision of information can help to reduce anxiety, promote satisfaction, compliance with treatment and improved self care.

As there is a risk of women with gynaecological cancers suffering from high levels of depression and anxiety about recurrence, access to a clinical nurse specialist should be offered as part of the management process.

Advanced disease/palliative care

As the disease advances local infiltration and metastasis, together with the effects of treatment, may give rise to specific symptoms for consideration and control. The most common symptoms include:

- ◆ pain
- ◆ offensive vaginal discharge
- ◆ vaginal bleeding – may be heavy
- ◆ fistulae formation
- ◆ fungation, especially into the vagina.

4

Cancer of the ovary

Incidence

In the UK approximately 6,900 women are diagnosed with ovarian cancer each year. Among gynaecological cancers, ovarian cancer ranks as the leading cause of death. An absence of symptoms in the early stages of the disease accounts for the high mortality rate. The risk of ovarian cancer increases with age. Most ovarian cancers occur in women who have gone through the menopause (Cancer Research UK, 2005).

The ovaries are a pair of solid oval-shaped organs about 2-3 cm in diameter located laterally to the uterus. Endocrine stimuli are responsible for altering their shape, size, position and histology (Eriksson and Frazier, 2001).

Aetiology

The exact aetiology of ovarian cancer remains unknown. The genes BRCA1 and BRCA2 when altered or mutated account for approximately 10 per cent of ovarian carcinomas (Shaw et al., 2002) but risk factors associated with the disease include:

- ◆ low parity
- ◆ nulliparity
- ◆ length of time a woman has ovulated
- ◆ history of breast cancer
- ◆ hormonal influence

(decreased risk)

- ◆ pregnancy
- ◆ lactation
- ◆ combined oral contraceptives.

Histology

The most common histological types of ovarian cancer are epithelial tumours. Other types of tumour include sex cord stromal tumours and germ cell tumours (Dina et al., 2002).

Screening

To date there is no cost-effective screening programme for ovarian cancer. Research by Jacobs et al. (1990) demonstrated increased specificity and sensitivity by using pelvic examination, serum CA 125 and transvaginal ultrasound but not to acceptable levels in women of normal risk. There is currently a large national study taking place to address the screening question – United Kingdom Collaborative Trial of Ovarian Cancer Screening (UKTOCS). Results are expected in 2010 (Cancer Research UK, 2005). Prophylactic oophorectomy may offer the best protection against ovarian cancer for those women at high risk (Hallowell et al., 2001). If screening indicates a possible cancer, surgery is required to establish a diagnosis.

Spread

Approximately two-thirds of women with ovarian cancer will present with disease beyond the pelvis. Direct spread involves the pelvic peritoneum and other pelvic organs. Other modes of spread involve:

- ◆ migration of exfoliated cells within the normal circulation of peritoneal fluid
- ◆ lymphatic permeation
- ◆ haematogenous spread – usually occurs late, may involve liver, lung, bone and brain.

Signs and symptoms

Enlargement of the abdomen is the most common sign. The woman may experience no symptoms in early disease and non-specific symptoms such as vague abdominal and pelvic discomfort, increasing flatulence, a sense of bloating and gastrointestinal disturbances (WellBeing of Women, 2005).

Staging

Staging is based upon surgical and pathological findings. For adequate staging the following procedures need to be undertaken: exploratory laparotomy; peritoneal washings; total abdominal hysterectomy; bilateral salpingo-oophorectomy; omentectomy; multiple peritoneal biopsies; and pelvic and para-aortic lymph node sampling. However, for a young woman with stage I ovarian cancer, or with a tumour of low malignant potential, the reproductive organs are preserved if at all possible (Benedet et al., 2000).

FIGO (International Federation of Gynecology and Obstetrics) Carcinoma of the Ovary – Staging:

FIGO Stages	TNM Categories
Primary tumour cannot be assessed	TX
0 No evidence of primary tumour	T0
I Tumour confined to ovaries	T1
Ia Tumour limited to one ovary, capsule intact No tumour on ovarian surface No malignant cells in the ascites or peritoneal washings	T1a
Ib Tumour limited to both ovaries, capsules intact No tumour on ovarian surface No malignant cells in the ascites or peritoneal washings	T1b
Ic Tumour limited to one or both ovaries With any of the following: Capsule ruptured, tumour on ovarian surface, positive malignant cells in the ascites or positive peritoneal washings	T1c
II Tumour involves one or both ovaries with pelvic extension	T2
IIa Extension and/or implants in uterus and/or tubes No malignant cells in the ascites or peritoneal washings	T2a
IIb Extension to other pelvic organ No malignant cells in the ascites or peritoneal washings	T2b
IIc IIA/B with positive malignant cells in the ascites or positive peritoneal washings	T2c
III Tumour involves one or both ovaries with microscopically confirmed peritoneal metastasis outside the pelvis and/or regional lymph nodes metastasis	T3 and/or N1
IIIa Microscopic peritoneal metastasis beyond the pelvis	T3a
IIIb Macroscopic peritoneal metastasis beyond the pelvis 2 cm or less in greatest dimension	T3b
IIIc Peritoneal metastasis beyond pelvis more than 2 cm in greatest dimension and/or regional lymph nodes metastasis	T3c and/or N1
IV Distant metastasis beyond the peritoneal cavity	M1

Note: Liver capsule metastasis is T3/ Stage III, liver parenchymal metastasis M1/ Stage IV. Pleural effusion must have positive cytology. (FIGO, 2000)

The survival rates of ovarian cancer depend upon the tumour type. Epithelial cancer is stage I 93 per cent, stage II 70 per cent, stage III 37 per cent, stage IV 25 per cent.

Treatments

Surgery: surgery is still the cornerstone of treatment for ovarian cancer. Adequate cytoreduction of the tumour remains the most important prognostic factor (Bristow et al., 2002). The timing of the surgery is currently under investigation with EORTC (European Organisation for Research and Treatment of Cancer) and MRC (Medical Research Council) clinical trials. These trials are looking at offering surgery 'upfront' at the time of diagnosis or giving a course of chemotherapy before the surgery is performed.

Second-look surgery: an exploratory second-look laparotomy has been performed on those women who have achieved a complete clinical response after primary therapy. Benefits include evaluating the patient's response to treatment to decide on any future debulking surgery. However, there is associated morbidity.

Chemotherapy: including conventional treatment with chemotherapy agents; intraperitoneal chemotherapy; high dose chemotherapy; neoadjuvant chemotherapy. The current NICE recommendation (2003) is that women should be offered the choice of a platinum-based chemotherapy alone as first-line treatment (usually following surgery) or to have a combination of platinum and paclitaxel.

Chemotherapy can be used when ovarian cancer recurs after initial treatment, second-line treatment. A platinum-based chemotherapy may be used second-line and NICE approves the use of Paclitaxel (if not used upfront), Pegylated Liposomal Doxorubicin (Caelyx) and topotecan. Some women with ovarian cancer may have many courses of chemotherapy in the course of their disease management.

Hormonal therapy: a viable treatment option for patients who have failed cytotoxic chemotherapy.

Radiotherapy: mainly used for palliation.

Nursing considerations

The disease has many manifestations. In all phases quality of life can be affected physically, psychologically, sexually and spiritually. The initial phase involves the consequences of diagnosis surgery and chemotherapy with the resulting side-effects. Specific nursing considerations include:

- ◆ possible need for bowel surgery as part of debulking/stoma formation
- ◆ association with poor prognosis
- ◆ nutritional status
- ◆ induced menopause
- ◆ sexuality
- ◆ fertility.

Advanced disease/palliative care

The four most common complications of advanced disease are ascities, bowel obstruction, pleural effusions and malnutrition (Eriksson and Frazier, 2001). Nursing intervention should be focused on relieving symptoms and associated discomforts that are inherent in this disease.

- ◆ **Bowel obstruction:** managed medically at first, by resting the bowel. In women who fail to respond to conservative measures, surgical relief of the obstruction can be undertaken. The aim is palliation.
- ◆ **Ascities:** if the abdomen is tense and uncomfortable, an attempt should be made to drain the ascities. However, multiple paracenteses deplete protein levels and can lead to loculation.
- ◆ **Plural effusion:** needle aspiration can provide relief. With advancing illness, reduce discomfort so as to ease breathlessness.
- ◆ **Malnutrition:** anxiety, depression and poorly controlled pain are all potent appetite suppressants. Bowel constriction can lead to loss of appetite and an inability to eat enough food to maintain adequate nutrition. Altered metabolism in malignancy can result in anorexia and cachexia.

5

Cancer of the vulva

Incidence

In the UK approximately 950 women per year are diagnosed with vulva cancer, the majority of whom are over 65 years of age (ONS, 2005).

Anatomy

The vulva consists of the external female genitalia. The vulva includes the mons pubis, labia majora, labia minora, the clitoris and the vestibule. It is covered by squamous epithelium.

Aetiology

Little is known of the aetiology of vulval cancer. There is often a long history of vulval irritation and scratching. Viral factors have been implicated but the significance of viral association remains uncertain.

It has been suggested that vulval cancer exists as two separate diseases. The first type involves humanpapillomavirus (HPV) infection, which leads to VIN (vulval intraepithelial neoplasia) and predisposes the patient to vulval cancer. The second type involves vulval non-neoplastic epithelial disorders (VNED) and advanced age, leading to cellular atypia and cancer.

Most of the vulval cancers appearing in young women arise in a field of VIN. An estimated 80 per cent of untreated women develop invasive disease (Jones et al., 1977). Thirty per cent of patients with vulval cancer present at 70 years or older and this rate increases with age, reaching a peak of 20 per 100,000 by age 75 years (Crum, 1992). This rate equals lifetime risks of acquiring vulval carcinoma and dying as a result of 0.3 and 0.1 respectively (Cramer, 1978).

Pathology

Histologically, most invasive vulval cancers – 85 per cent – are squamous. Other types of tumour include adenocarcinoma, basal cell carcinoma and melanoma. Paget's disease of the vulva, although rare, is associated with a 15 per cent risk of an underlying adenocarcinoma (2002).

Screening

There is no effective screening available for vulval cancer and due to the relatively small numbers presenting with the disease, it is unlikely to be screened for in the general population. VIN (vulval intraepithelial neoplasia), a potential precursor to vulval cancer, can be monitored or treated by excision. Follow-up is required because of the multi-focal nature of the disease.

Spread

Cancer of the vulva usually spreads slowly, infiltrating locally before metastasising to groin nodes. Direct spread involves adjacent organs (vagina, urethra, anus). Bloodstream metastasis to lung and bone is late and uncommon.

The tumour invades locally and in the majority of cases metastasises to the superficial and deep inguofemoral nodes followed sequentially by pelvic nodal spread and systemic disease. Direct spread from the vulva to pelvic lymph nodes is sufficiently uncommon to have little impact on treatment strategies.

Signs and symptoms

Most patients with vulva carcinoma complain of irritation or pruritis and about 57 per cent report a mass or ulcer. Bleeding, discharge, dysuria, dyspareunia, a lesion that will not heal, or vulval pain are more common with advanced disease (Moore-Higgs, 2000).

Staging

FIGO (International Federation of Gynecology and Obstetrics) Carcinoma of the Ovary – Staging:

FIGO Stages	TNM Categories
Primary tumour cannot be assessed	TX
No evidence of primary tumour	T0
0 Carcinoma in situ (preinvasive carcinoma)	Tis
I Tumour confined to vulva or vulva and perineum, 2 cm or less in greatest dimension	T1
Ia Tumour confined to vulva or vulva and perineum, 2 cm or less in greatest dimension and with stromal invasion no greater than 1.0 mm*	T1a
Ib Tumour confined to vulva or vulva and perineum, 2 cm or less in greatest dimension and with stromal invasion greater than 1.0 mm*	T1b
II Tumour confined to the vulva or vulva and perineum, more than 2 cm in greatest dimension	T2
III Tumour invades any of the following: lower urethra, vagina, anus and/or unilateral regional node metastasis	T3
IV	T4
IVa Tumour invades any of the following: bladder mucosa, rectal mucosa, upper urethral mucosa; or is fixed to bone and/or bilateral regional node metastases	
IVb Any distant metastasis including pelvic lymph nodes	

* The depth of invasion is defined as the measurement of the tumour from the epithelial-stromal junction of the adjacent most superficial dermal papilla, to the deepest point of invasion.

(FIGO, 2000)

The overall five-year survival rate is approximately 75 per cent. For stage I disease the survival rate is around 90 per cent but drops to 50 per cent when metastatic disease is present (Shaw et al., 2002).

Treatments

The treatment of choice for cancer of the vulva is surgery. Radical surgical management should be carried out in centres with considerable surgical, anaesthetic and nursing experience of the disease. This multidisciplinary approach will result in high feasibility of operations and excellent long-term survivals (Monaghan, 1999).

- ◆ Patients with stage Ia carcinoma may be treated with wide local excision alone.
- ◆ For those with a stage Ib tumour, a radical vulvectomy with bilateral groin node dissection may be performed through separate incisions. Where the tumour is laterally placed and there is no significant pre-invasive skin change a wide local excision of the tumour on the vulva combined with ipsilateral groin node dissection is appropriate. The margins should be as close to 2 cm as possible.
- ◆ For later stage disease with carcinomas up to 4 cm in diameter a woman will require a radical vulvectomy and bilateral groin node dissection ensuring the cancer is completely encompassed with a 2 cm wide margin of normal tissue.
- ◆ Women with vulval cancers over 4 cm in diameter or where there are clinically involved nodes are quite often not suitable for surgery and are referred for radiotherapy.
- ◆ If the cancer extends to the anus or lower rectum an anovulvectomy with colostomy or a posterior exenteration should be considered together with groin and pelvic node dissection (Grimshaw et al., 1991).

Radiotherapy: can be given post-operatively in the presence of nodal disease or pre-operatively to reduce the size of the tumour.

Chemotherapy: sometimes used as adjuvant treatment with radiotherapy or in an attempt to control symptoms for palliation.

Nursing considerations

- ◆ Wound infection: the most commonly listed complications of radical vulvectomy.
- ◆ Lymphoedema: advice needs to be given for prevention.
- ◆ Body image/sexual morbidity: sensitivity, consideration of partner. Referral for specialist advice (Corney et al., 1993).
- ◆ Sexual dysfunction: referral for specialist advice, information and treatment.
- ◆ Pre-existing medical conditions and general fitness should be taken into account when care planning.

Advanced disease/palliative care

Advanced disease requires careful management, physically, psychologically and socially. Specific problems experienced by women with advanced vulval cancer include:

- ◆ fungating vulval or groin wounds
- ◆ lymphoedema
- ◆ bleeding
- ◆ offensive odour
- ◆ difficulty in passing urine or faeces
- ◆ pain – which may be complex and difficult to control, requiring specialist management
- ◆ ability to cope of partner/family.

6

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Useful contacts

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London EC2A 3JR
Freeline: 0808 800 1234
www.cancerbacup.org.uk
- Cancer Research UK**
www.cancerresearch.org.uk

Cochrane Cancer Network

www.canet.org

Helene Harris Memorial Trust (HHMT) / Ovarian Cancer Action

Bush House, The Waterfront
Elstree Road
Herts WDG 3BS
Telephone: 020 8238 7605
www.hhmt.org

Jo's Trust – fighting cervical cancer

www.jotrust.co.uk

MacMillan Cancer Relief

89 Albert Embankment
London SE1 7UQ
Telephone: 0808 8082020
www.macmillan.org.uk

Ovacome

Elizabeth Garrett Anderson Hospital
Huntley Street
London WC2E 6DH
Telephone: 020 7380 9589
www.ovacome.org.uk

Relate

Telephone: 0845 130 4061
www.relate.org.uk

Royal College of Nursing

RCN Direct: 0845 772 6100
www.rcn.org.uk

VACO – Vulval Awareness Campaign Organisation

www.vaco.co.uk

Women's Health

52 Featherstone St
London EC1Y 8RT
Telephone: 0845 125 5254
www.womenshealthlondon.org.uk

WellBeing of Women

A charity funding research into all aspects of women's reproductive health
www.wellbeingofwomen.org.uk



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