

Endometrial Carcinoma

- ▶ Endometrial cancer is now the most common gynaecological malignancy worldwide and the fourth most common female cancer after breast, colon and lung.
- ▶ Endometrial cancers account for approximately 30 per cent of all gynaecological malignancies
- ▶ The mean age of diagnosis is 54, although cancers can be diagnosed in women throughout their reproductive life.
- ▶ The incidence of endometrial cancer rises sharply in the mid 40s, it should be remembered that 25 per cent of cancers occur before the menopause.

Aetiology

- ▶ The exact causes of endometrial cancer remain unclear, however there is a clear association with high circulating levels of oestrogen
- ▶ In post-menopausal women, conversion of androgens to oestrogen occurs in adipose tissue.
- ▶ there is also interaction with insulin-like growth factor and insulin and endometrial cancer is more common in diabetic patients.
- ▶ Tamoxifen, a selective oestrogen receptor modulator (SERM) used to prevent recurrent breast cancer by blocking oestrogen receptors in the breast, is known to increase the risk of endometrial cancer by up to a factor of 2.5.
- ▶ Genetic causes of endometrial cancer . The most common genetic link is with hereditary nonpolyposis colorectal cancer syndrome (HNPCC), an autosomal dominant inheritance . HNPCC is associated with colorectal, ovarian, endometrial and urothelial tumours, the cumulative cancer risk for endometrial cancer varies from 25 to 70 per cent depending on the mutation.

Risk factors for endometrial cancer

- ▶ Obesity
- ▶ Diabetes
- ▶ Nulliparous
- ▶ Late menopause >52 years
- ▶ Unopposed oestrogen therapy
- ▶ Tamoxifen therapy
- ▶ Hormone replacement therapy
- ▶ Family history of colorectal or ovarian cancer

Clinical features

- ▶ The most common symptom of endometrial cancer is abnormal vaginal bleeding, 90 per cent of patients present with either post-menopausal bleeding (PMB) or irregular vaginal bleeding.
- ▶ In pre-menopausal women include intermenstrual bleeding (IMB), blood-stained vaginal discharge, heavy menstrual bleeding (HMB), lower abdominal pain or dyspareunia.
- In advanced cancer, patients may present with evidence of fistula, bony metastases, altered liver function or respiratory symptoms.

Diagnosis

- ▶ At examination, blood may be noted arising from the cervix on speculum examination.
- ▶ Bimanual examination of the uterus may reveal an enlarged uterus.
- ▶ ultrasound scanning
- ▶ , endometrial biopsy and hysteroscopy.

- ▶ Transvaginal ultrasound scans (TVS) are often performed in the outpatient clinic and allow a quick and accurate assessment of endometrial thickness and of the ovaries
- ▶ . if the endometrium measures less than 4 mm, cancer is very unlikely, any measurement more than this will require hysteroscopy and biopsy. Hysteroscopy can be performed in the outpatient setting or as an inpatient under general anaesthetic. Hysteroscopy allows direct visualization of the whole endometrium and allows a directed biopsy to be performed .

Endometrial cancer can only be diagnosed by histological examination of a biopsy, endometrial biopsy can be performed using an endometrial sampler, such as the Pipelle, or by curettage. The histological report should give information on cancer type and grade of tumour .

a diagnosis of endometrial cancer, magnetic resonance imaging (MRI) is often performed. This will give useful information regarding the extent of disease (stage) and helps to decide on the type of surgical treatment offered to

- ▶ The most common type of cancer affecting the uterus is adenocarcinoma, this arises from the lining (endometrium) of the uterus
- ▶ there are two distinct types: endometrioid adenocarcinoma (type 1) and serous papillary carcinoma (type 2). These cancers are very different: type 1 cancers account for 90 per cent of endometrial adenocarcinomas, are oestrogen dependent, occur in younger women and have a good prognosis, whilst type 2 cancers occur in elderly women, are non-oestrogen dependent and have a much poorer prognosis
- ▶ Clear cell carcinoma can rarely arise from the endometrium.
- ▶ malignancy can arise from the stroma or myometrium (sarcoma).

Staging

- ▶ The FIGO classification of staging . is a surgical classification, patients with low-grade endometrial tumours who are staged as 1a or 1B on MRI may be offered surgery in a cancer unit, whereas all high-grade tumours or those staged >1B should have surgery in a cancer centre.

- ▶ Table 13.2 FIGO staging of carcinoma of the uterus (2009)

- ▶ 1 Confined to uterine body

1a Less than 50% invasion

1b More than 50% invasion

2 Tumour invades cervical stroma

3 Local and or regional spread of tumour 3a Invades serosa of

uterus 3b Invades vagina and/or parametrium 3c Metastases to

pelvic and/or para aortic nodes 4 Tumour invades bladder ±

bowel ± distant metastases

Management

Surgery

- ▶ As the majority of patients present with stage 1 disease, surgery is the most common treatment for endometrial cancer. The extent of surgery will depend on a number of factors including; grade of disease, MRI stage and the patient's comorbidities.
- ▶ The standard surgery is a total hysterectomy, bilateral salpingectomy. This can be performed abdominally or laparoscopically (total, vaginally assisted or robotically).
- ▶ If the patient is low grade (grades 1-2) or MRI staging suggests disease less than stage 1B, then this surgery is adequate.
- ▶ If MRI staging suggests cervical involvement, a radical hysterectomy with pelvic node dissection can be performed .
- ▶ If the tumour is high grade (grade 3) or papillary serous, many centres will perform pelvic and para-aortic node dissection as the risk of nodal disease (to either pelvis or para-aortic chain) can be as high as 30 per cent .
- ▶ The role of nodal dissection remains contentious, a survival benefit in endometrial cancer patients who had pelvic node dissection.
- ▶ almost 50 per cent of nodal metastases spread to the para-aortic chain and several studies have illustrated survival benefits for patients having pelvic and para-aortic dissection performed.

Adjuvant treatment

- ▶ Postoperative radiotherapy will reduce the local recurrence rate but does not influence survival.
- ▶ Different units may treat following surgery or wait and treat if the cancer recurs.
- ▶ Strategies for treatment include local radiotherapy to the vaginal vault given over a short period of time (high-dose radiotherapy, HDR), external beam radiotherapy given for locally advanced disease (stage 3) in combination with HDR.
- ▶ Chemotherapy may also be given for metastatic disease to combat the risk of distant spread of the cancer

Prognosis

- ▶ The overall five-year survival rate for endometrial cancer is 80 per cent, there is considerable variation in this depending on tumour type, stage and grade of tumour.
- ▶ In stage 1 disease, overall five-year survival ranges from 66 per cent
- ▶ in patients with high-grade 1B disease to 93 per cent for patients with low-grade 1A diseases.
- ▶ Adverse prognostic features for survival include advanced age >70 years, high BMI, grade 3 tumours, papillary serous or clear cell histology, lymphovascular space involvement, nodal metastases and distant metastases.

5 year survival to women with endometrial cancer

Stage	5 year survival (%)
I	88
II	75
III	55
IV	16