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Cervical Carcinoma

1. GROSS DESCRIPTION

Specimen

— cervical smear/punch or wedge biopsy/diathermy (hot) or knife (cold) cone biopsy/LLETZ (large loop excision of transformation zone)/hysterectomy/trachelectomy with laparoscopic lymphadenectomy/radical (Wertheim's) hysterectomy with vaginal cuff, parametria and lymphadenectomy/pelvic (anterior/posterior/ total) exenteration (bladder, ureters, uterus, vagina, tubes and ovaries, rectum)
— size (cm) and weight (g).
— cervical dysplasia and cancer are often detected because of an abnormal smear as part of a cervical screening programme. A persistent or high-grade abnormality is referred for colposcopic visualization of the transformation zone to delineate abnormal areas of mucosa characterized by punctation, mosaicism and loss of uptake of iodine (acetowhite epithelium). Cervical punch biopsy determines the nature of the abnormality which, if localized, is ablated or resected by loop or cone biopsy. Specimens are orientated, serially sliced and all processed with standard step sections to establish the nature (squamous or glandular) and grade of the lesion, the presence of any invasive component and relationship to the exocervical, endocervical and deep margins. Close histocytological correlation is required for accurate reporting and smear follow-up is for 5–10 years with subsequent return to usual screening programme intervals. A significant proportion of established cervical cancers are asymptomatic in the older age group and undiscovered due to non-attendance at cervical smear appointments. Some result from misinterpretation and undercalling of previous smears in what is a screening programme with inevitable false-negative cases. Symptomatic disease (e.g. postcoital bleeding) requires clinical examination and, if a cancer is suspected, a targeted wedge biopsy rather than a punch biopsy taken as this has a greater chance of establishing invasive disease. Tumour staging is by MRI scan (for local spread) and CT scan (for distant spread). Cold cone knife biopsy may be considered for small cancers or if a cervical glandular lesion is suspected but, in general, with tumours greater than stage IA, radical hysterectomy is carried out. In occasional cases a fertility-sparing radical

trachelectomy (cervix, parametria) with laparoscopic lymphadenectomy is performed. Indications for pelvic exenteration are invasion of adjacent organs, recurrent disease and severe pelvic irradiation necrosis. Advanced disease may present with ureteric obstruction and chronic renal failure, haematuria or rectal symptoms.

Tumour

Site
— endocervix/exocervix.
— anterior/posterior.
— lateral (right/left).

Size
— length × width × depth (cm) or maximum dimension (cm).
— stromal invasion: breech of basement membrane with scant stromal penetration <1 mm in depth.
— microinvasion:
depth—≤3 mm (FIGO IA1) or 5 mm (FIGO IA2) depth of invasion from the nearest (surface or glandular) basement membrane, usually involved by CIN/CGIN.
volume—≤500 mm^3 (Burghardt) or ≤5 mm depth ×7 mm horizontal axis (FIGO).
vessels—venous or lymphatic permeation does not alter the staging.

Appearance
— polypoid/papillary/nodular/solid/ulcerated/burrowing. Ulcerated cancers generally infiltrate more deeply than polypoid ones.

Edge
— circumscribed/irregular.

Extent
— infiltration cervical wall, parametria, corpus uteri, vagina.

2. HISTOLOGICAL TYPE

Squamous cell carcinoma
— 80% of cases.
— classical:
keratinizing
non-keratinizing—large cell/small cell. Non-keratinizing large cell is recognizably squamous with intercellular bridges but no keratin pearls are present.

variants:

— verrucous: exophytic and locally invasive. May recur after excision and radiotherapy. Bland cytology with bulbous processes and a pushing deep margin.