TUMOURS Benign ovarian tumours and cysts

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Overall, 90% of ovarian tumours are benign, with an increased risk of malignancy in older women: the malignant potential of an ovarian cyst in a premenopausal woman is 1:1000, increasing to 3:1000 at the age of 50 years. Ovarian tumours are subdivided into five main categories according to the World Health Organization’s classification system (Table 87.13 /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF Benign ovarian tumours are often asymptomatic and may present incidentally , for example when an abdominal radiograph reveals the appearance of a tooth in the abdomen or pelvis. Conversely , they may present with pain, abdominal swelling, pressure-type symptoms, nausea or vomiting. Sudden- onset pain with vomiting and raised inflammatory markers can be more diagnostic of ovarian torsion (see Adnexal torsion Management will depend on the age of the woman and the characteristics of the cyst (Summary box 87.3). In older women, a conservative approach is only reasonable if the risk of malignancy is low (see Ovarian cancer). In perimenopausal as many will regress. If there is uncontrollable pain, haemody - namic compromise, suspicion of tor sion or the cyst does not regress, then surgical management is advised. In most cases - this would involve a laparoscopic ovarian cystectomy with con - servation of o varian tissue as the treatment of choice. As the vast majority of oocytes lie within 5 /uni00A0 mm of the surface of the ovary , a carefully carried out cystectomy can leave a normally functioning ovar y (Figure 87.24). Summary box 87.3 Management of benign ovarian cysts /uni25CF /uni25CF). /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF). /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF

TABLE 87.13 Classi /f_i cation of ovarian tumours. Surface epithelial Represent approximately 65% of all tumours ovarian tumours and 90% of ovarian malignancies Further classi /f_i ed by cell type (serous, mucinous, endometrioid, clear cell, transitional cell, epithelial–stromal [undifferentiated]) and atypia (benign, borderline or malignant) Germ cell tumours Represent approximately 15% of all ovarian neoplasms Mature teratomas are the most common type of ovarian germ cell tumour (benign), often called a dermoid cyst. They most commonly occur in women of reproductive age and contain a variety of tissues, including skin, hair follicles, sweat glands, bone and teeth Malignant germ cell tumours include immature teratomas, dysgerminomas, yolk sac tumours, choriocarcinomas and embryonal carcinomas Sex cord–stromal Represent approximately 10% of all tumours ovarian neoplasms Metastatic tumours Represent approximately 5% of ovarian malignancies; usually arise from breast, colon, endometrium, stomach and cervical cancers Other/miscellaneous A small number of other types of neoplasms, which develop from ovarian soft tissue or non-neoplastic processes Commonly, an incidental /f_i nding, but may be suggested by symptoms and signs A pregnancy test should be performed to exclude an ectopic pregnancy (however, it is important to note that HCG can also be positive in dysgerminomas and

choriocarcinomas) TVUS is the mainstay diagnostic tool with high sensitivity and speci /f_i city in being able to differentiate a benign mass from a malignant one (Table 87.14). If the results are indeterminate, an MRI or CT scan may help; an MRI is more useful than a CT scan for the assessment of complex cysts/endometriosis. Masses with radiographic characteristics of cancer (e.g. cystic and solid components, surface excrescences, multilocular appearance, irregular shape) require removal Tumour markers may help in the diagnosis of speci /f_i c masses (see Ovarian cancer) In women of reproductive age, simple, thin-walled cystic adnexal masses of a maximum diameter of 50 /uni00A0 mm without characteristics of cancer do not require further investigation unless they persist for >3 months. A follow-up scan can be arranged after 4 months to check for resolution. In postmenopausal women, this is conducted every 4 months in conjunction with a serum blood test for the cancer antigen 125 (CA-125) for a duration of 1 year; if no change is detected, the women can be discharged Perimenopausal women with simple cysts measuring 50–70 /uni00A0 mm in diameter should undergo annual ultrasound follow-up Women with larger cysts (>70 /uni00A0 mm) or persistent cysts may bene /f_i t from an MRI scan or surgical intervention Cyst removal (ovarian cystectomy) is preferably performed laparoscopically. Cyst aspiration is associated with a high risk of recurrence but can be considered after detailed counselling if the woman wishes to retain her fertility. Bilateral salpingo- oophorectomy is preferable for postmenopausal women if surgery is indicated An oophorectomy may become necessary if the cyst cannot be surgically removed from the ovary TABLE 87.14 International Ovarian Tumor Analysis (IOTA) group classi /f_i cation for the ultrasound assessment of ovarian cysts. Benign features (B-rules) Malignant features (M-rules) Unilocular cysts Irregular solid tumour Solid components, the Ascites largest of which is <7 /uni00A0 mm Minimum of four papillary structures Acoustic shadowing Smooth multilocular tumour Irregular multilocular tumour <100 /uni00A0 mm ≥ 100 /uni00A0 mm No blood /f_l ow Blood /f_l ow

Figure 87.24 Ovarian cystectomy.

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