Ovarian Conditions

Ovarian Cysts

Epidemiology

- Common, 30-50% pre-menopausal. More common if irregular menses. 6% post-menopause.

Types

- Mucinous, serous, dermoid, endometrial, functional (follicular – first half of cycle, luteal – latter half of cycle)

Complications

- More common on R, torsion, rupture, haemorrhage, irregular bleeding, dyspareunia, Ca.

Assessment

- May be benign & asymptomatic. Often sudden onset constant pain, initially unilateral. May start on exercise or intercourse. Occ fever, PV spotting. Mimics appendicitis.

Investigations

Bloods: FBC, UEC, βhCG, ±LFT/amylase/lipase
Imaging: USS, laraoscopy.

Management

- Analgesia
- Cysts>5cm (risk of Ca) or severe pain should be removed.
- If post-menopausal should prompt search for Ca ovary.

Ovarian Torsion

- Occurs in normal or pathologically enlarged ovaries/fallopian tubes
- 75% <30y
- 20% are pregnant

Assessment

- Sudden onset unilateral low abdominal pain. ±Mass. Usually afebrile.

Investigations

Bloods: FBC, UEC, βhCG, ±LFT/amylase/lipase
Imaging: USS, laraoscopy.

Management

- Analgesia
- Laparoscopic repair
- Salpingo-oophorectomy

Polycystic Ovary Syndrome

- AKA: Stein-Leventhal Syndrome
- Ovarian dysfunction with 2 of the 3 following criteria:
    - Polycystic ovaries (either ≥12 peripheral follicles or ovarian volume >10ml)
    - Oligo- or anovulation
    - Clinical and/or biochemical signs of hyperandrogenism

Epidemiology

- ~20% have asymptomatic polycystic ovaries on USS, but only 5-10% have syndrome.
- Often familial but no genes yet identified.

Pathophysiology

- Excessive pituitary LH & inadequate FSH → ↑production & ↓conversion to oestrogens of androgens → ovulatory impairment and the development of unruptured cysts.
- Assoc hyperinsulinaemia → dyslipidaemia & ↑plasminogen activation → ↑thrombosis risk.

Presentation

The condition is heterogeneous. Sometimes symptoms can be present without biochemical abnormality and underlying endocrine disturbance can exist in the absence of polycystic ovaries. Typically: obese (30-50%), virilised, with acne, hirsutism and oligomenorrhoea /amenorrhoea. Also infertility or sub fertility. IGT (40%), T2DM (10%) and hyperinsulinaemia.

Investigations

Bloods: TFT, Hormones incl: LH, FSH, LH:FSH ratio, oestrogen, testosterone., PRL, serum 17-hydroxyprogesterone (for CAH).
Imaging: USS, laparoscopy, CT may be req to rule out other tumours/CAH.
Other: OGTT, fasting lipids

Management

Supportive: weight control and exercise (often difficult). Cosmetic Rx for hirsutism.
Medical:

- **Metformin** 500-2500mg/day PO and glitazones (esp if frankly diabetic) may help menstrual regularity & fertility.
- **Orlistat** and **sibutramine**: ↓weight and ↓hyperandrogenism.
- **Clomiphene**: pregnancy rates. SE: multiple pregnancy.
- Anti-androgen e.g. **cyproterone** 2mg/day (**Dianette®** a OCP) or spironolactone.
- Combined OCP: caution if BMI>30 & avoid if BMI>39.
- Progestogens: to control/induce cyclical bleeding (↓risk of endometrial carcinoma).

Surgical:

- Laparoscopic ovarian electrocautery 60% successful esp if normal BMI.

Complications

- ↑Risk of endometrial carcinoma if untreated.
- ↑CVS risk (obesity, hyperandrogenism, hyperlipidaemia and hyperinsulinaemia).
- ↑Risk of T2DM.
- ↑Risk of sleep apnoea.

Ovarian Cancer

Many types including:

- Epithelial ovarian tumours most common (>80%) – usually serous or mucinous cystadenocarcinoma in F>50y.
- Germ cell tumours usually present as a rapidly enlarging painful abdominal mass which may rupture or undergo torsion.
- Metastatic from GIT (Krukenberg tumours), breast, endometrium, and lymphoma.
- Embryonal carcinoma & choriocarcinoma (non-gestational) seen in children & young adults.

Epidemiology

- 5% of all cancers among women.
- OCP ↓ risk of ovarian cancer for up to 10 years following cessation of use.

Risk Factors

- HRT if used for >5y.
- History of infertility and use of fertility drugs, e.g. clomiphene.
- Nulliparous.
- Early menarche, late menopause and increasing age are also risk factors.
- Family or personal history of ovarian or breast cancer.
- Diet: a high-fat diet may play a role in the aetiology of ovarian cancer.

Presentation

The majority present with abdominal/pelvic mass at advanced stage at as onset of symptoms is insidious. May have ascites. 30% have ascites+pleural effusion (often R) (Meig's syndrome).

Investigations

- βhCG, CA-125, hCG, AFP, LDH, USS, CT/MRI, CXR
- Laparotomy, biopsy, and surgical staging

Management

Because of late diagnosis, often palliative care.
Otherwise chemotherapy & laparotomy for debulking or THBSO

Prognosis

- Overall 5-year survival in ovarian epithelial carcinoma is low because of late-stage disease at diagnosis: Stage I and II: 80-100%, but Stage III: 15-20% & Stage IV: 5%
- Patients <50 in all stages have better 5-year survival than older patients (40% vs 15%)