PIPADOR REVISION

MRCOG Part 1 Revision Notes

Polycystic Ovaries

PATHOLOGY • LECTURE 352

VISUAL EXAMINATION REVISION NOTES

2026 Edition

352

MRCOG PART 1 REVISION NOTES | PATHOLOGY

Polycystic Ovaries

Pathophysiology, pathology, diagnostic criteria, consequences and management of PCOS

≈ 10–13%	2 of 3	≥ 20	Insulin resistance
Women (Rotterdam)	Diagnostic criteria	Follicles per ovary (2–9 mm)	Central mechanism

■ **KEY FACTS: Learning objectives**

- Describe the pathophysiology of polycystic ovary syndrome (PCOS).
- Describe the pathology and ultrasound features of polycystic ovaries and diagnostic criteria.
- Describe long-term consequences and management principles.

352.1 Pathophysiology

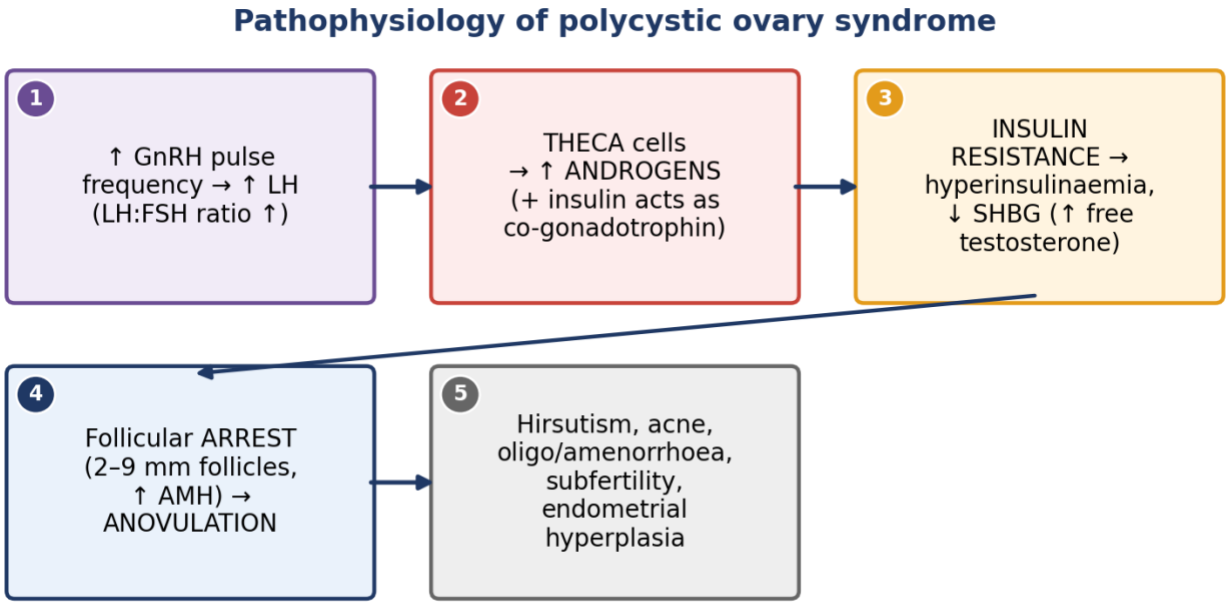


Figure 352.1 — Pathophysiology of PCOS

- Genetic susceptibility (FSHR, LHCGR, DENND1A, INSR loci) plus environment (obesity amplifies insulin resistance)
  - Prenatal androgen exposure hypothesis.
- **AMH** is raised (more small antral follicles) and inhibits FSH action → follicular arrest.
- Polycystic ovarian morphology alone (without other features) is common in young women and is not PCOS.

352.2 Diagnosis

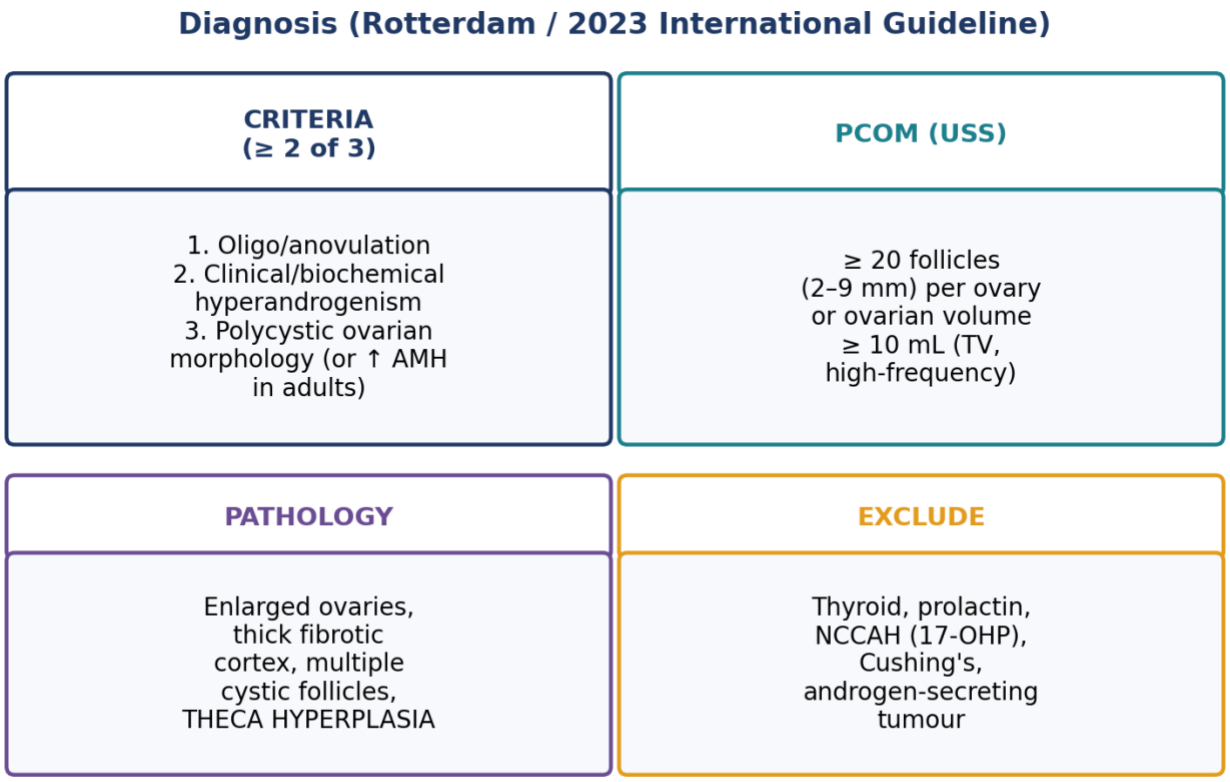


Figure 352.2 — Diagnosis

352.3 Consequences and management

Consequence	Management
Anovulation, subfertility	Weight loss, letrozole (first line), clomifene, metformin, gonadotrophins, laparoscopic ovarian drilling, IVF (OHSS risk)
Hirsutism, acne	COC, anti-androgens (cyproterone, spironolactone — contraception needed), eflornithine, laser
Endometrial hyperplasia/cancer	• Induce withdrawal bleed ≥ every 3–4 months (progestogen/COC/LNG-IUS) • TVS if amenorrhoeic
Metabolic	• Type 2 diabetes/GDM (OGTT), dyslipidaemia, sleep apnoea, NAFLD, cardiovascular risk • Depression/anxiety
Pregnancy	↑ GDM, pre-eclampsia, miscarriage, preterm birth — OGTT at 24–28 wk

352.4 Must-know summary

■ EXAM TIP

- ↑ LH + insulin → theca androgens; follicular arrest; ↑ AMH; ↓ SHBG.
- Rotterdam 2 of 3: oligo/anovulation, hyperandrogenism, PCOM (≥ 20 follicles or ≥ 10 mL; AMH alternative).
- Pathology: enlarged ovaries, thick cortex, theca hyperplasia.
- Long-term: diabetes, endometrial cancer, CVD; letrozole for ovulation induction.

■ MNEMONIC / MEMORY AID

Rotterdam — 'Oligo, Hairy, Polycystic' (any two).