PIPADOR REVISION

MRCOG Part 1 Revision Notes

Germ Cell Tumours

PATHOLOGY • LECTURE 355

VISUAL EXAMINATION REVISION NOTES

2026 Edition

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MRCOG PART 1 REVISION NOTES | PATHOLOGY

Germ Cell Tumours

Classification, pathology, markers, complications and management of ovarian germ cell tumours

Dermoid	AFP · hCG · LDH	BEP	Fertility
Commonest ovarian tumour < 30	Markers	Chemotherapy — cure > 90%	Usually preserved

■ KEY FACTS: Learning objectives

- Classify ovarian germ cell tumours and describe their pathology.
- Describe tumour markers, genetic associations and complications.
- Describe management with fertility preservation.

355.1 Classification

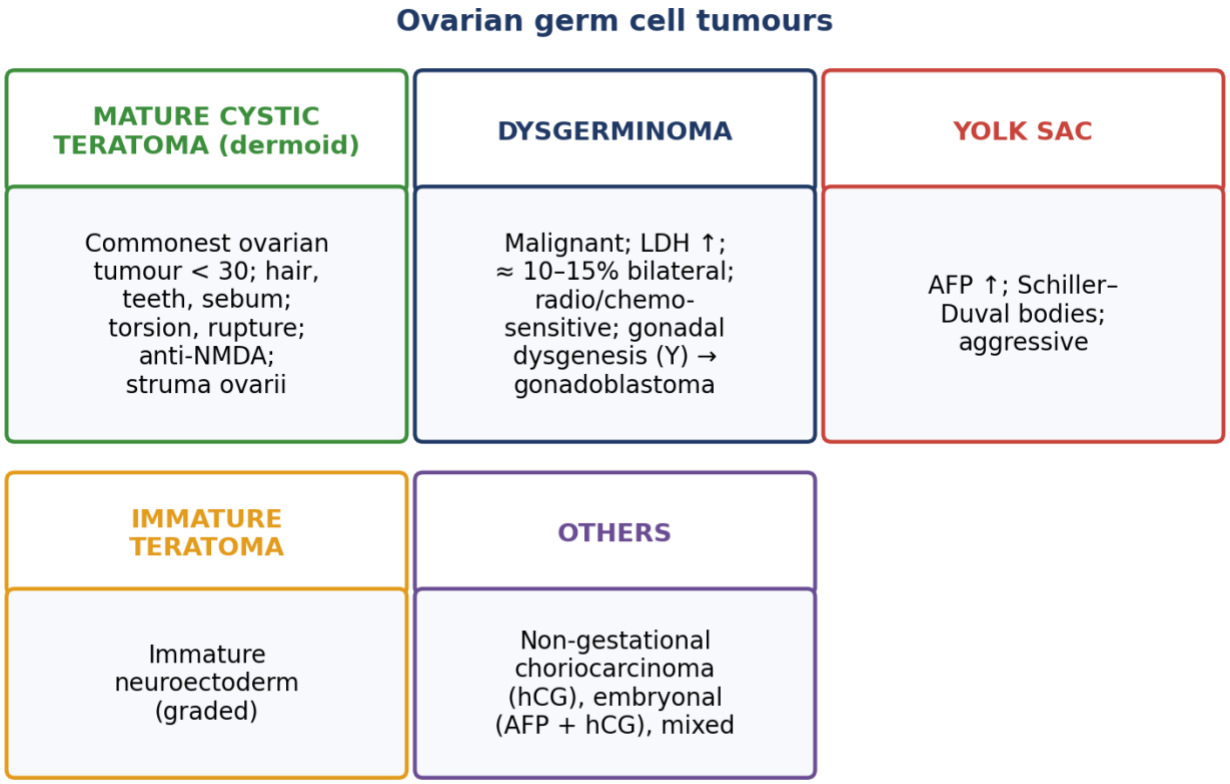


Figure 355.1 — Ovarian germ cell tumours

Tumour	Key points
Mature cystic teratoma	• All 3 germ layers (ectoderm dominant — Rokitansky protuberance) • Bilateral ≈ 10–15% • Complications: **torsion** (commonest) • Rupture (chemical peritonitis), infection

Tumour	Key points
	• **Anti-NMDA encephalitis** • Haemolytic anaemia • Malignant transformation (SCC, ≈ 0.2–2%, older women)
Struma ovarii	Teratoma with > 50% thyroid tissue — may cause hyperthyroidism
Dysgerminoma	• Counterpart of seminoma • **LDH** • Lymphatic spread • Bilateral • Arises in **dysgenetic gonads with Y chromosome** (Swyer — gonadoblastoma) → gonadectomy
Yolk sac tumour	AFP, Schiller–Duval bodies; rapid growth, pain
Immature teratoma	Graded by amount of immature neuroepithelium
Non-gestational choriocarcinoma	hCG; no paternal genome

355.2 Management

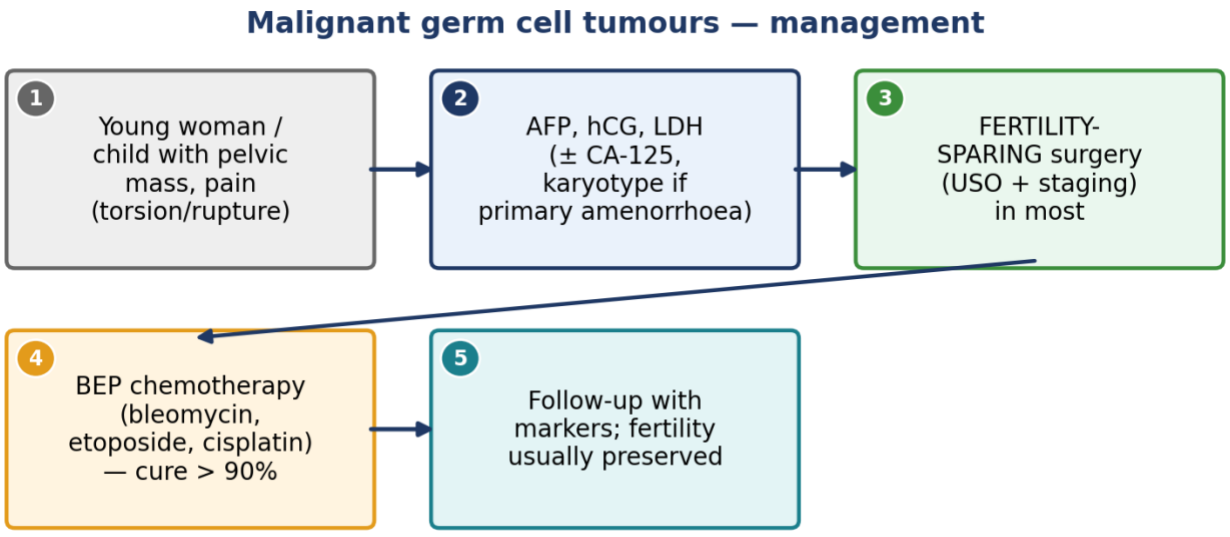


Figure 355.2 — Management of malignant germ cell tumours

- Dermoid cysts: **ovarian cystectomy** (laparoscopic) preserving ovarian tissue; small asymptomatic dermoids may be monitored.
- In pregnancy: germ cell tumours and dermoids are the commonest ovarian neoplasms
  - Surgery in 2nd trimester if needed
  - Markers (AFP, hCG) are physiologically raised in pregnancy.

355.3 Must-know summary

■ EXAM TIP

- Mature cystic teratoma: commonest in young women; torsion; anti-NMDA encephalitis; rare SCC change.
- Dysgerminoma: LDH, bilateral, Y-chromosome dysgenesis; yolk sac: AFP; choriocarcinoma: hCG.
- Fertility-sparing surgery + BEP — excellent cure.
- Interpret markers carefully in pregnancy.

■ MNEMONIC / MEMORY AID

Germ cell markers — 'Dys = LDH, Yolk = AFP, Chorio = hCG'.