PIPADOR REVISION

MRCOG Part 1 Revision Notes

Benign vs Malignant Tumours

PATHOLOGY • LECTURE 335

VISUAL EXAMINATION REVISION NOTES

2026 Edition

335

MRCOG PART 1 REVISION NOTES | PATHOLOGY

Benign vs Malignant Tumours

Features, nomenclature, borderline tumours, and grade versus stage

Invasion & metastasis
Define malignancy

Encapsulated
Typical of benign

Borderline
Ovarian intermediate

Grade vs stage
Differentiation vs extent

■ KEY FACTS: Learning objectives

- Compare benign and malignant tumours (macroscopic, microscopic, behaviour).
- Describe tumour nomenclature and borderline tumours.
- Distinguish grade and stage, with gynaecological examples.

335.1 Features

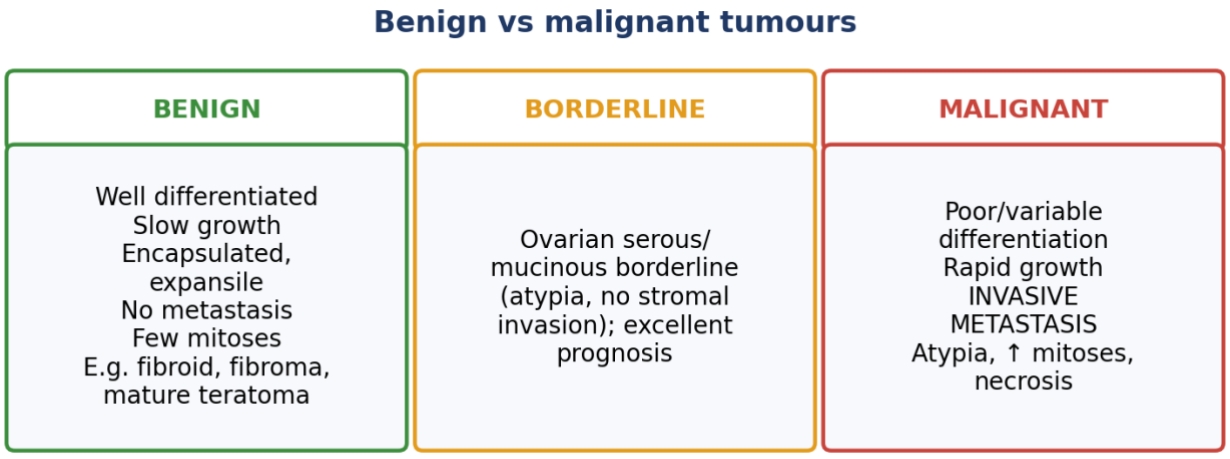


Figure 335.1 — Benign, borderline and malignant tumours

Feature	Benign	Malignant
Growth	Slow, expansile	Rapid, infiltrative
Margin	Well defined, often capsule	Irregular, invasive
Differentiation	Resembles tissue of origin	Variable — anaplasia
Cytology	Uniform nuclei, few mitoses	Pleomorphism, hyperchromasia, ↑ N:C ratio, atypical mitoses
Necrosis/haemorrhage	Uncommon (except degeneration — red degeneration of fibroids)	Common
Metastasis	Never	Defining feature
Effects	Pressure, hormone excess (granulosa cell tumour), torsion	Destruction, metastasis, paraneoplastic, cachexia

335.2 Nomenclature

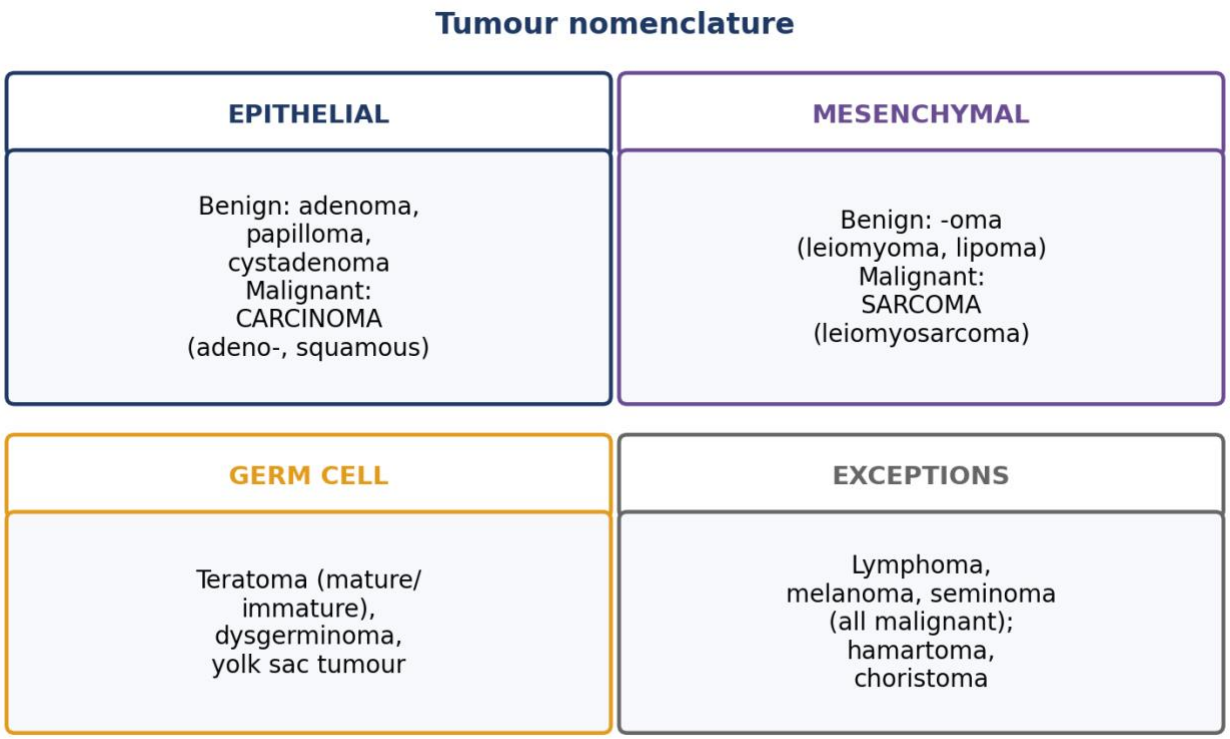


Figure 335.2 — Tumour nomenclature

- **Borderline ovarian tumours** (serous, mucinous): epithelial proliferation with atypia but **no destructive stromal invasion**
  - Younger women
  - Excellent prognosis
  - Fertility-sparing surgery possible
  - Serous type may have non-invasive peritoneal implants.
- **Leiomyoma vs leiomyosarcoma**: sarcoma diagnosed by ≥ 2 of significant atypia, high mitotic count, coagulative tumour cell necrosis
  - STUMP = uncertain malignant potential.
- **Teratoma**: mature cystic teratoma (dermoid — benign; malignant transformation rare, SCC in older women) vs immature teratoma (neuroectoderm — malignant).

335.3 Grade vs stage

Concept	Meaning	Examples
Grade	Degree of differentiation/cytological atypia (histology)	• Endometrioid endometrial carcinoma FIGO grade 1–3 • Serous ovarian low vs high grade
Stage	Anatomical extent of disease (TNM / FIGO)	Cervix FIGO 2018 (imaging/pathology allowed), ovary IA–IVB, endometrium FIGO 2023 (molecular)
Prognosis	Stage is usually the strongest predictor	—

335.4 Must-know summary

■ EXAM TIP

- Malignancy = invasion and metastasis; benign = expansile, encapsulated.
- -oma benign; carcinoma (epithelial), sarcoma (mesenchymal) malignant; exceptions (lymphoma, melanoma).
- Borderline ovarian tumours: atypia without stromal invasion.
- Grade = differentiation; stage = extent.

■ MNEMONIC / MEMORY AID

Malignant cytology — 'Pleomorphic, Plenty of mitoses, Prominent nucleoli, Poor polarity'.