PIPADOR REVISION

MRCOG Part 1 Revision Notes

Leiomyosarcoma

PATHOLOGY • LECTURE 351

VISUAL EXAMINATION REVISION NOTES

2026 Edition

351

MRCOG PART 1 REVISION NOTES | PATHOLOGY

Leiomyosarcoma

Pathology, diagnostic criteria, differential diagnosis, presentation and management of uterine leiomyosarcoma

≈ 1–2%	≥ 2 of 3	Lungs	Morcellation
Uterine malignancies	Atypia, mitoses, necrosis	Haematogenous spread	Avoid uncontained

■ KEY FACTS: Learning objectives

- Describe the pathology and diagnostic criteria of uterine leiomyosarcoma (LMS).
- Distinguish LMS from leiomyoma variants and STUMP.
- Describe presentation, staging and management, including morcellation risk.

351.1 Pathology

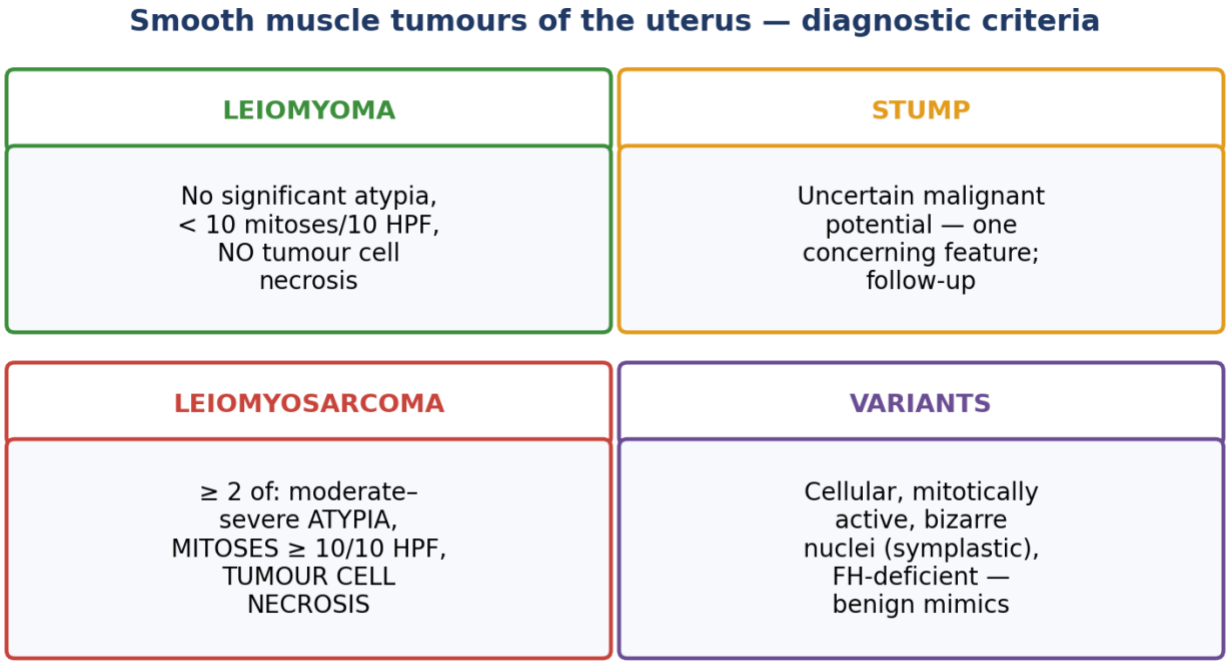


Figure 351.1 — Diagnostic criteria

- Usually arises **de novo** (not from a pre-existing fibroid); large, soft, fleshy, haemorrhagic, necrotic, poorly circumscribed mass.
- Molecular: complex karyotypes, TP53, RB1, ATRX alterations.
- Other uterine sarcomas: low-grade endometrial stromal sarcoma (JAZF1-SUZ12; indolent; hormone-sensitive), high-grade ESS
  - Undifferentiated sarcoma, adenosarcoma
  - Carcinosarcoma (now classed with carcinomas).

351.2 Clinical and management

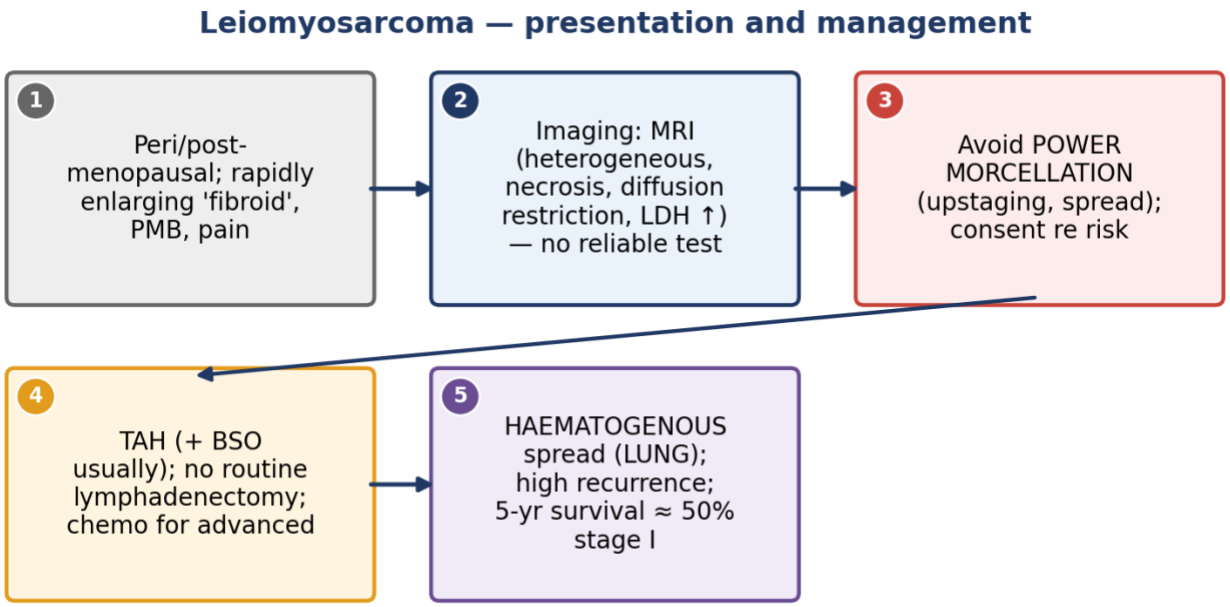


Figure 351.2 — Presentation and management

Topic	Details
Incidence in 'fibroid' surgery	Unexpected sarcoma in surgery for presumed fibroids ≈ 1 in 500–2,000 (higher in older women)
Risk factors	Age > 50, tamoxifen, previous pelvic radiotherapy, hereditary retinoblastoma, Li–Fraumeni
Staging	FIGO for LMS: I uterus (IA ≤ 5 cm, IB > 5 cm), II pelvis, III abdomen, IV bladder/rectum/distant
Treatment	• Total hysterectomy (± BSO) • No benefit from routine lymphadenectomy • Doxorubicin-based chemotherapy for advanced/metastatic • Pelvic radiotherapy limited role
Prognosis	Poor — high recurrence (lung, liver, peritoneum)

351.3 Must-know summary

■ EXAM TIP

- LMS: ≥ 2 of significant atypia, mitoses ≥ 10/10 HPF, tumour cell necrosis.
- STUMP = uncertain; benign variants mimic (cellular, bizarre nuclei, FH-deficient).
- Postmenopausal growing 'fibroid' → suspect; no reliable pre-op test; MRI helps.
- Avoid power morcellation; hysterectomy; lung metastases; poor prognosis.

■ MNEMONIC / MEMORY AID

LMS — 'Atypia, Mitoses, Necrosis' (AMN — any two).