PIPADOR REVISION

MRCOG Part 1 Revision Notes

Miscarriage Tissues

PATHOLOGY • LECTURE 321

VISUAL EXAMINATION REVISION NOTES

2026 Edition

321

MRCOG PART 1 REVISION NOTES | PATHOLOGY

Miscarriage Tissues

Histology of products of conception, causes identified on examination, and handling of pregnancy tissue

≈ 15–20%	≈ 50%	Villi	Histology
Clinical pregnancies end in miscarriage	Due to chromosomal abnormality	Confirm intrauterine pregnancy	Excludes molar pregnancy

■ KEY FACTS: Learning objectives

- Describe the histology of products of conception and what it confirms or excludes.
- Describe the pathological causes of miscarriage identified on tissue examination.
- Describe handling of pregnancy tissue: histology, cytogenetics and sensitive disposal.

321.1 Histology of pregnancy tissue

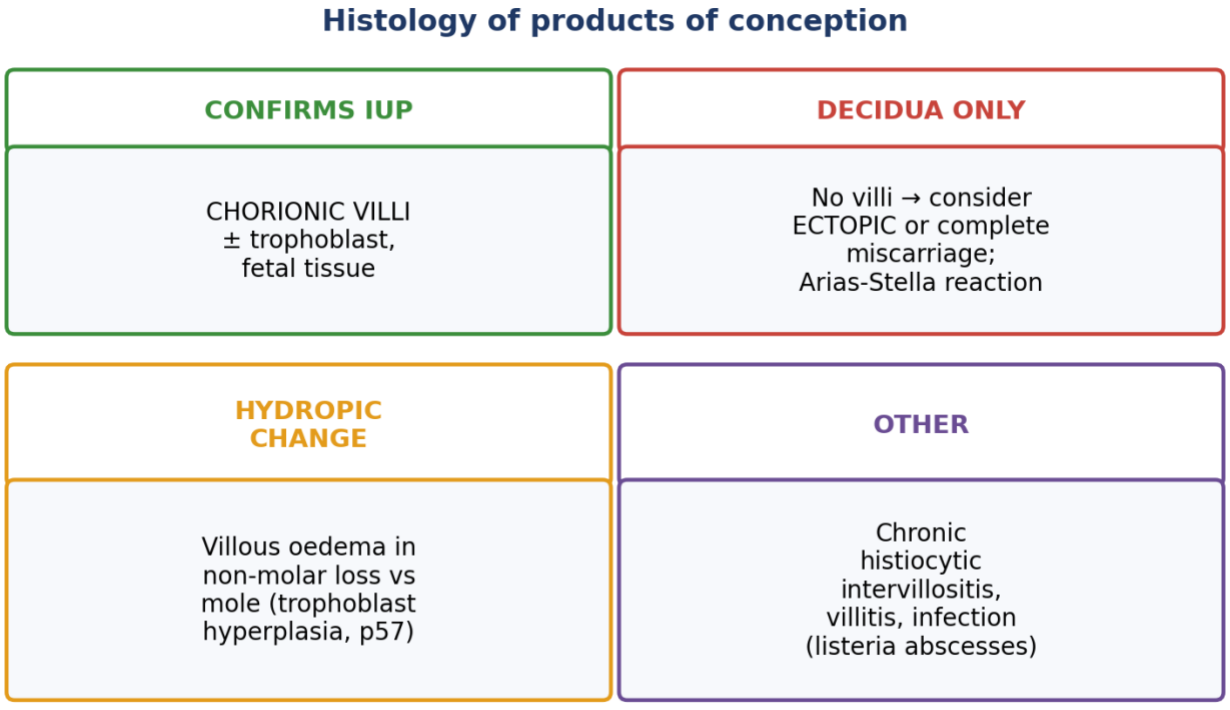


Figure 321.1 — Histological findings in products of conception

Finding	Significance
Chorionic villi	Confirm an intrauterine pregnancy (ectopic effectively excluded, except rare heterotopic)
Decidua without villi	Pregnancy elsewhere (ectopic) or complete miscarriage — correlate with scan and serial hCG
Arias-Stella reaction	• Hypersecretory endometrial glands with atypical nuclei — normal pregnancy response (intrauterine or ectopic) • Not malignancy

Finding	Significance
Hydropic change	Villous oedema in non-molar losses (often aneuploid) — must be distinguished from mole: trophoblast hyperplasia, scalloping, p57 immunostaining (absent in complete mole), ploidy/genotyping
Implantation site	Intermediate trophoblast in decidua/vessels — confirms site

321.2 Causes identified on examination

- **Chromosomal** (≈ 50% of first-trimester losses): autosomal trisomies (commonest — trisomy 16), triploidy, monosomy X (45,X).
- **Placental pathology**: chronic histiocytic intervillositis, massive perivillous fibrin deposition, villitis — high recurrence risk.
- **Infection**: listeria microabscesses, chorioamnionitis in 2nd-trimester loss.
- **Gestational trophoblastic disease**: partial or complete mole — requires registration and hCG follow-up.

321.3 Handling tissue

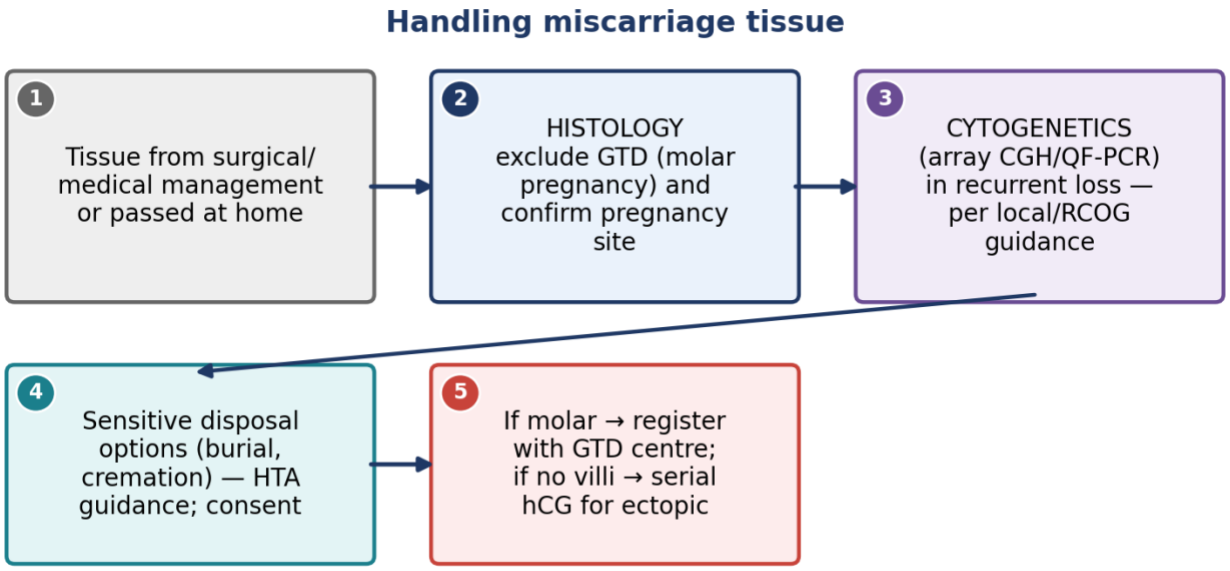


Figure 321.2 — Handling miscarriage tissue

- **Histology of all failed pregnancies** where no fetal parts have been seen is recommended to exclude GTD (RCOG GTG 38)
  - After medical/home management, women can return tissue or do a urine pregnancy test at 3 weeks.
- **Cytogenetics** (QF-PCR, array CGH) in recurrent miscarriage helps counselling: aneuploid loss suggests a better prognosis for the next pregnancy
  - Unbalanced translocation → parental karyotype.
- Sensitive disposal (burial, cremation, taking home) in line with HTA guidance and the woman's wishes.

321.4 Must-know summary

■ EXAM TIP

- Villi confirm IUP; decidua alone → think ectopic.
- Arias-Stella reaction is a benign pregnancy change.
- Hydropic villi vs mole — p57 (negative in complete mole), ploidy.
- Histology to exclude GTD; cytogenetics in recurrent loss; sensitive disposal.

■ MNEMONIC / MEMORY AID

'No villi? Check the tube'.