CASE PRESENTATION

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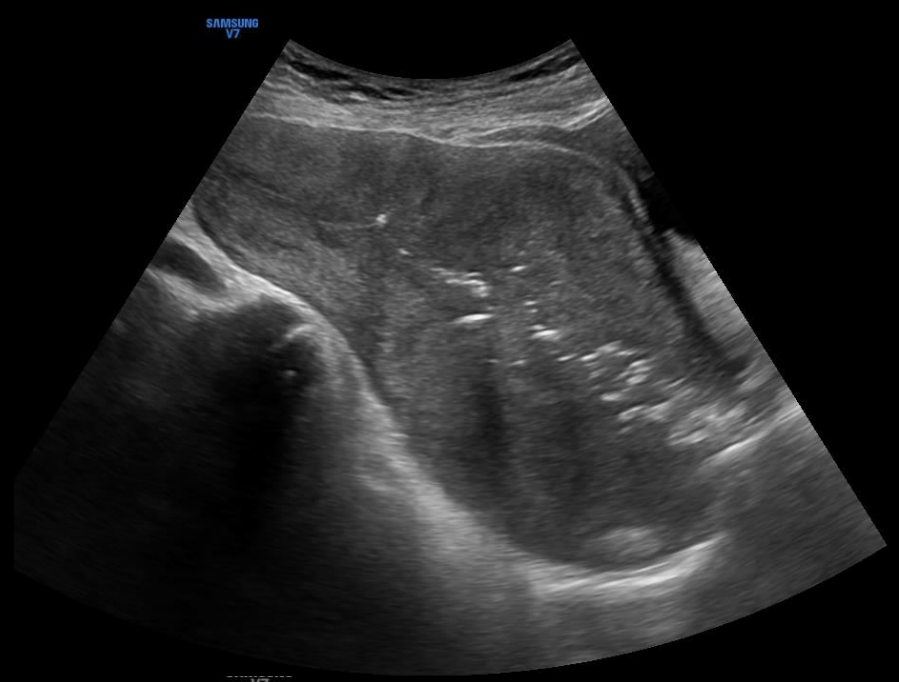
RADIODIAGNOSIS, NKPSIMS

A 25-YEAR-OLD WOMAN P2L2A1 CAME WITH COMPLAINT OF WHITE COLOURED FOUL SMELLING PV DISCHARGE SINCE 1 YEAR.

H/O AMENORRHEA SINCE 4 MONTHS WITH A POSITIVE URINE PREGNANCY TEST.
O/E UTERINE HEIGHT WAS ON LOWER SIDE FOR GESTATIONAL AGE BY LMP.

CLINICAL DIAGNOSIS OF 16 WEEK PREGNANCY WITH CHRONIC CERVICITIS WAS MADE AND USG PELVIS WAS ADVISED FOR FURTHER EVALUATION.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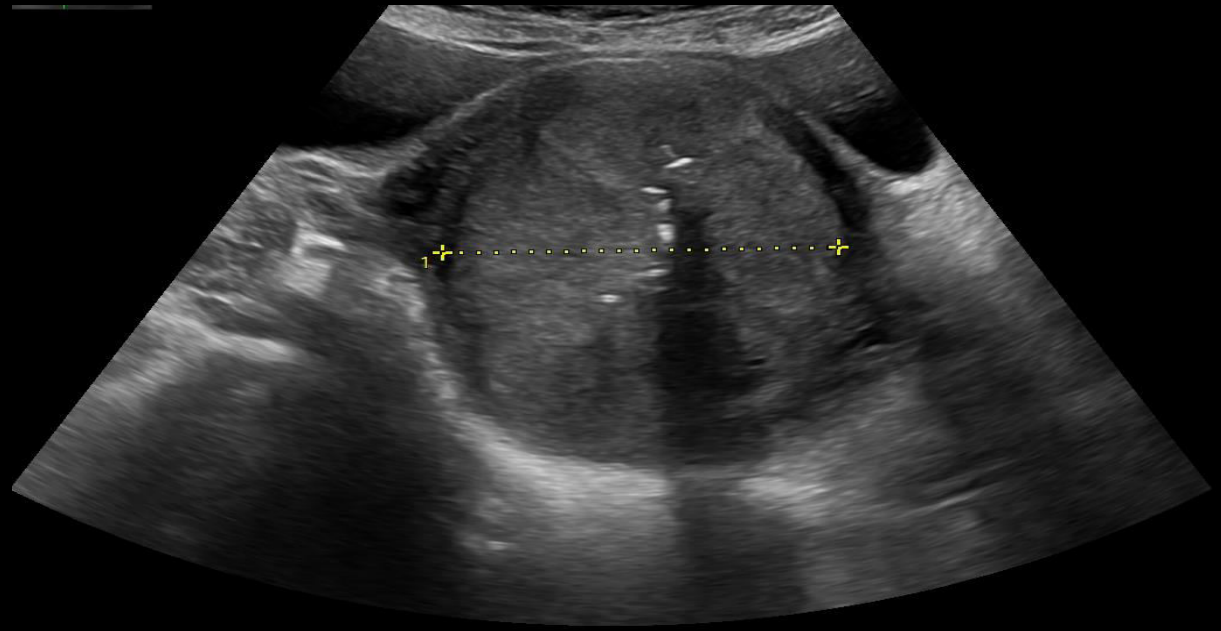
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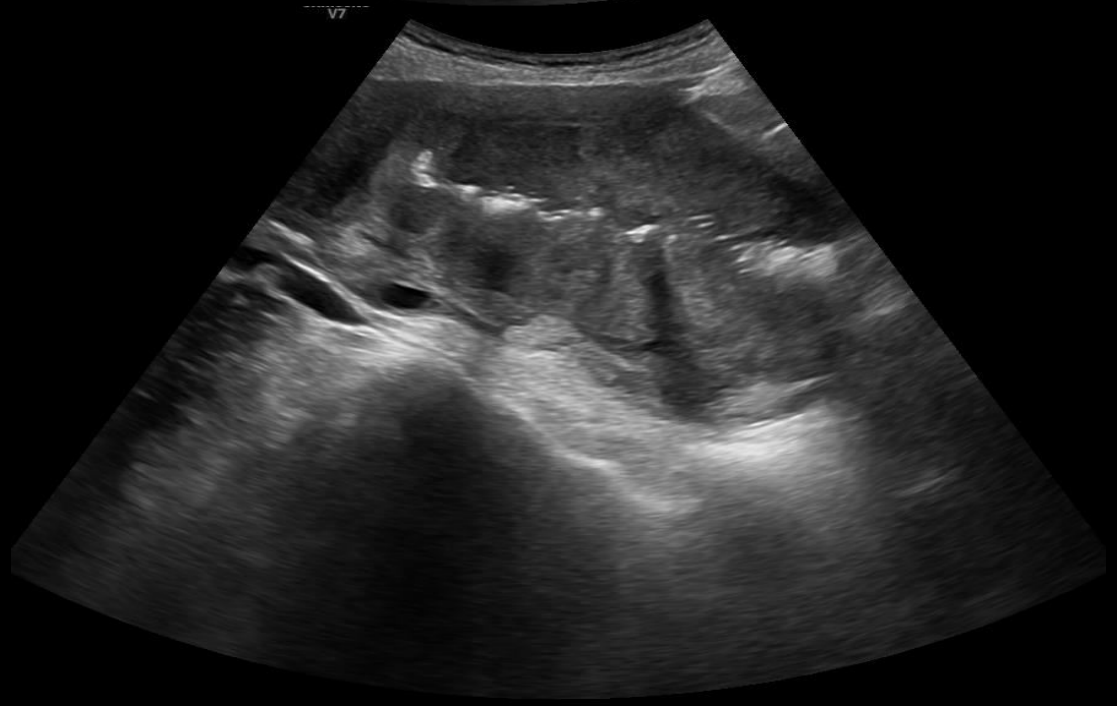
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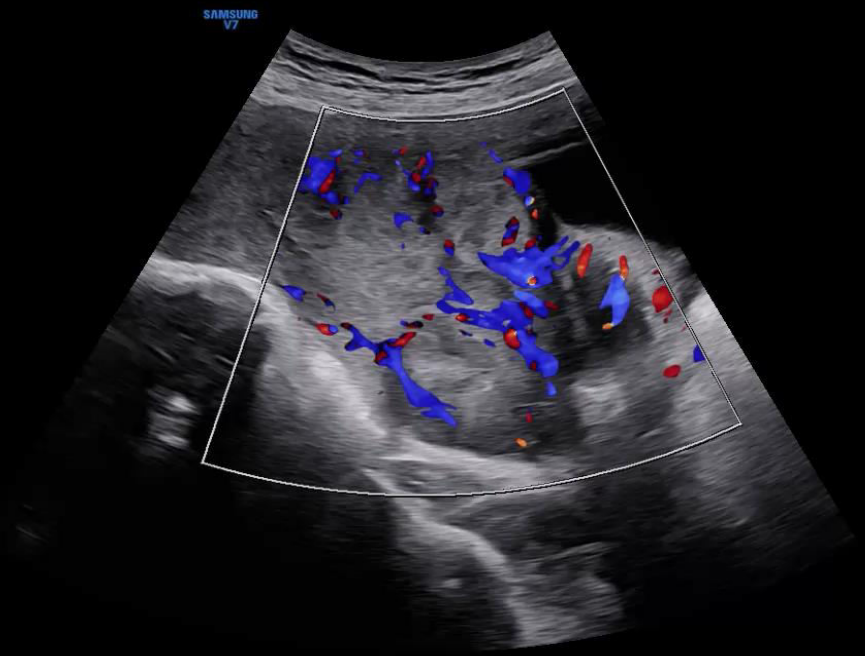
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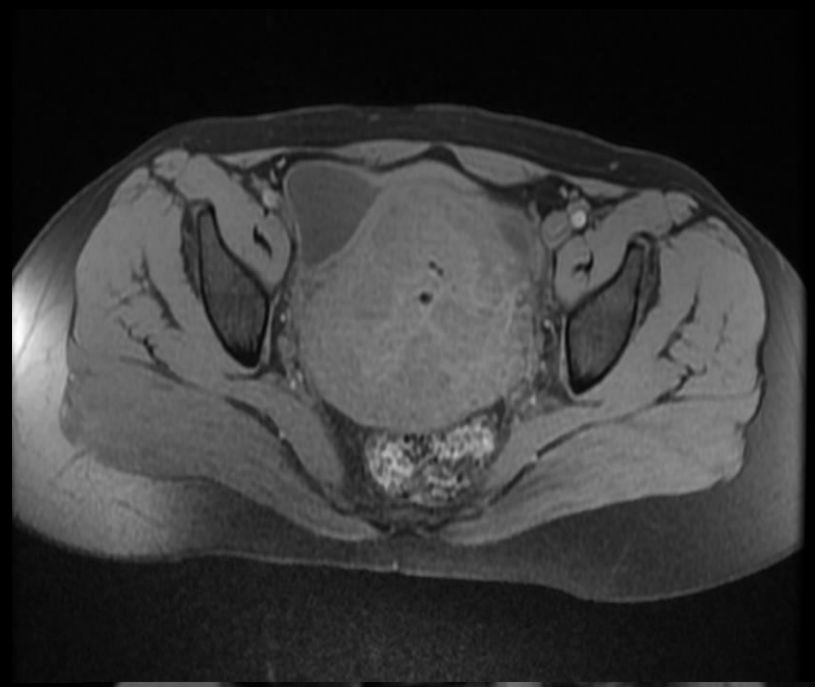
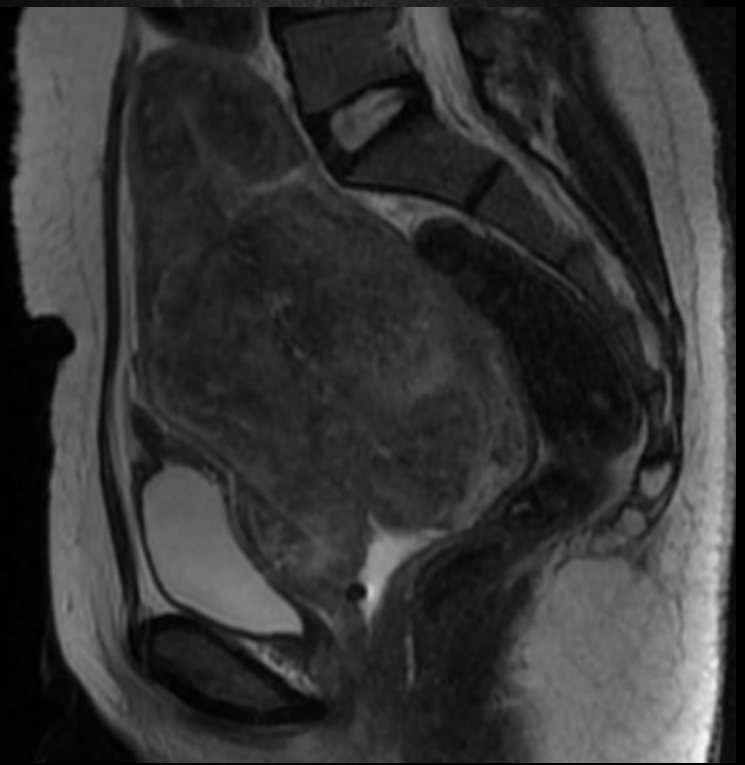
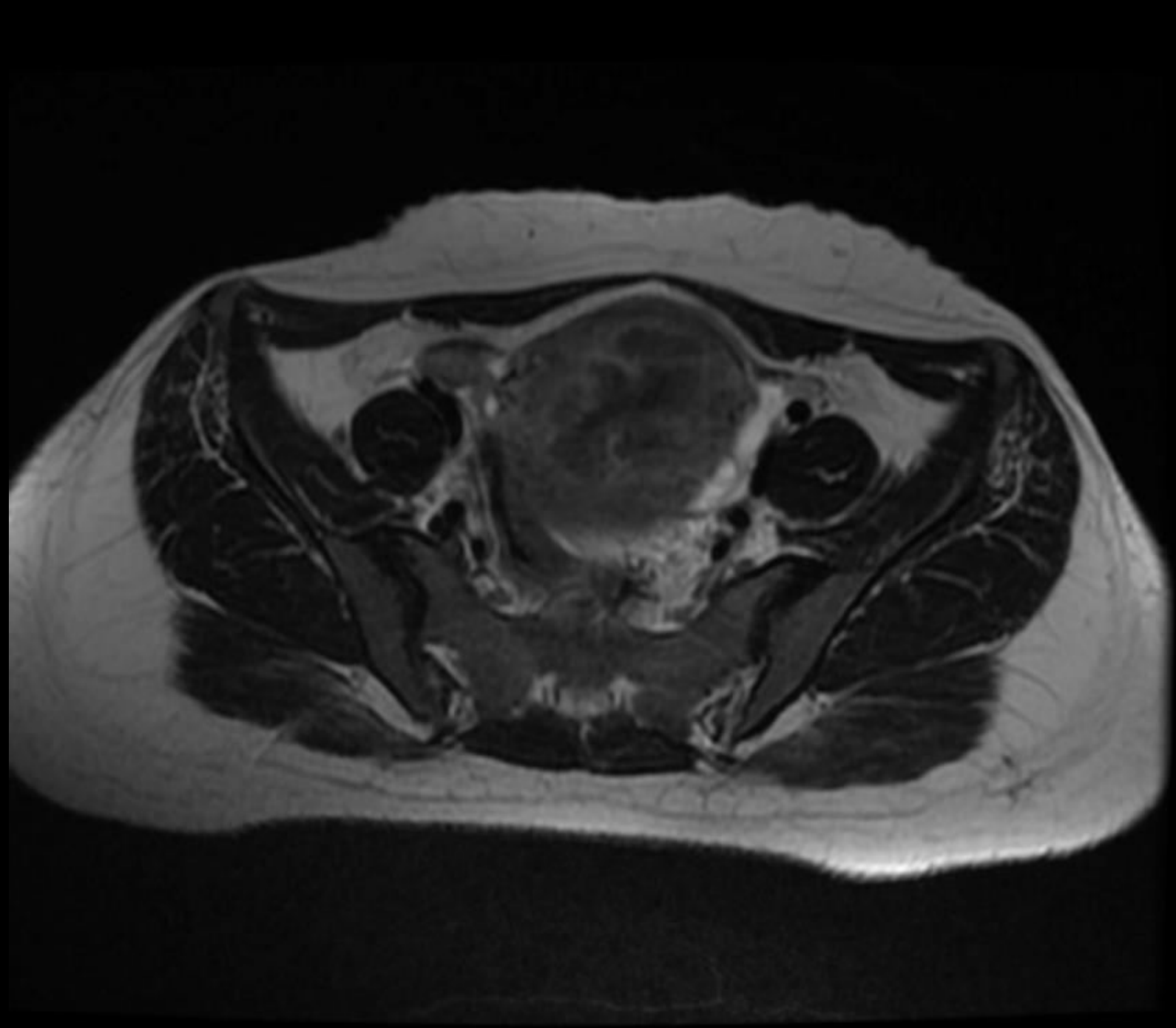
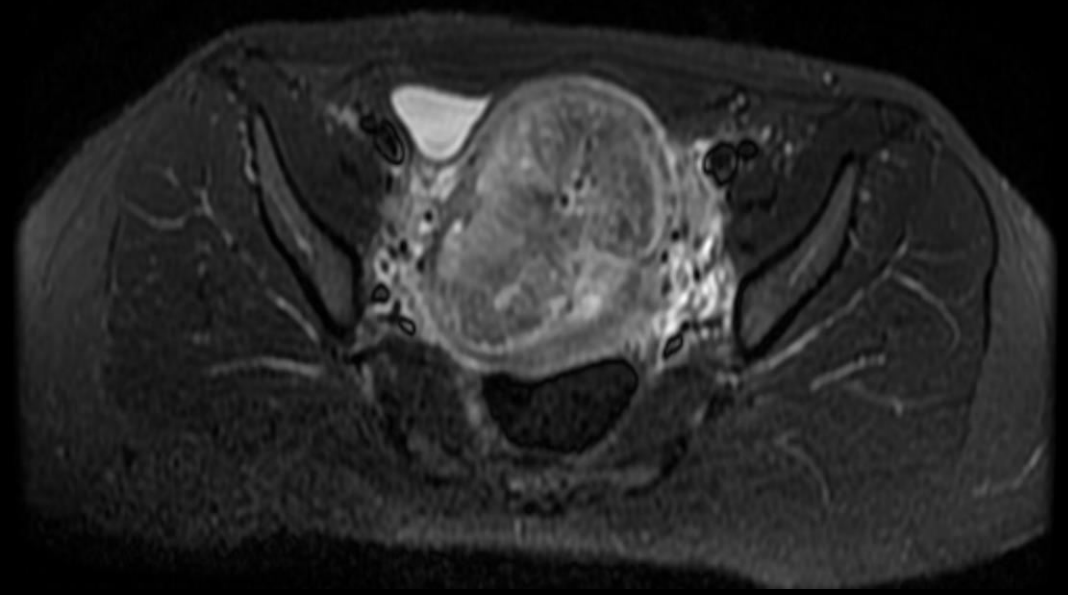
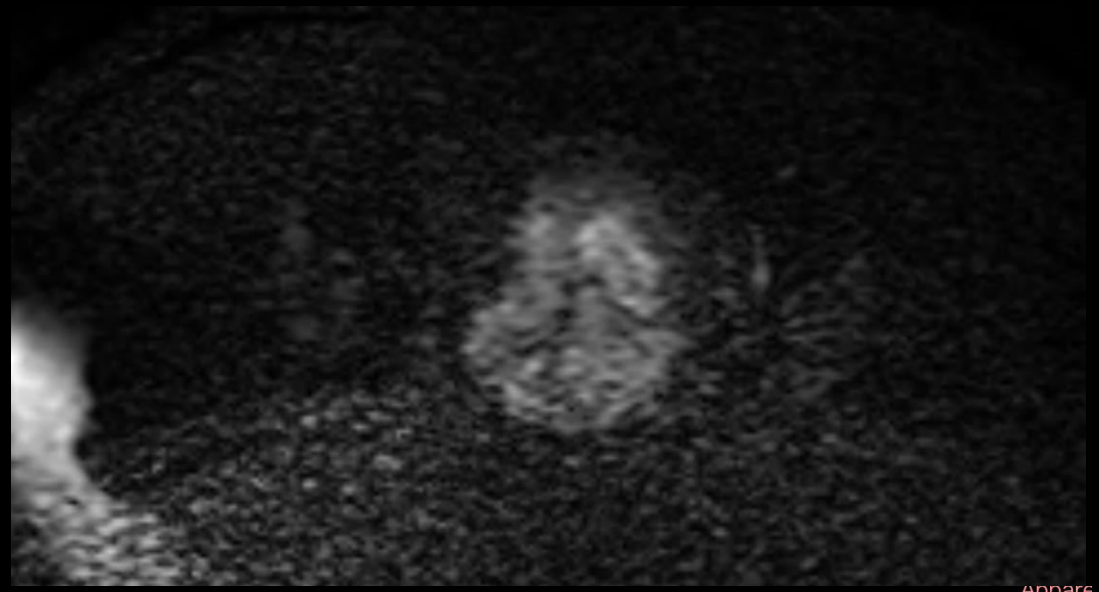
Definitive diagnosis and involvement of myometrium could not be determined on USG – Patient was advised MRI and Serum B-HCG











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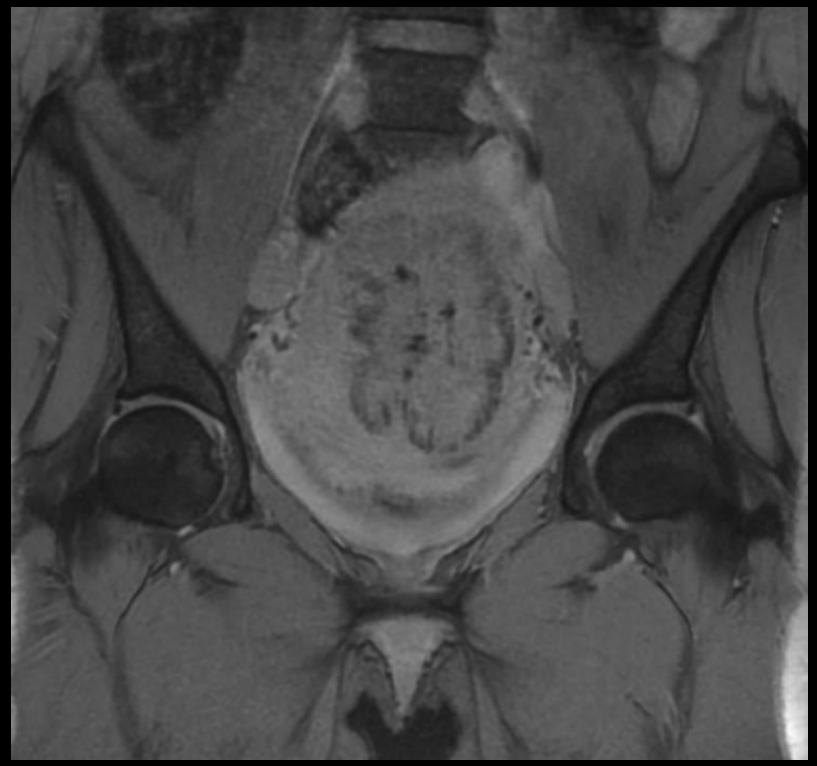
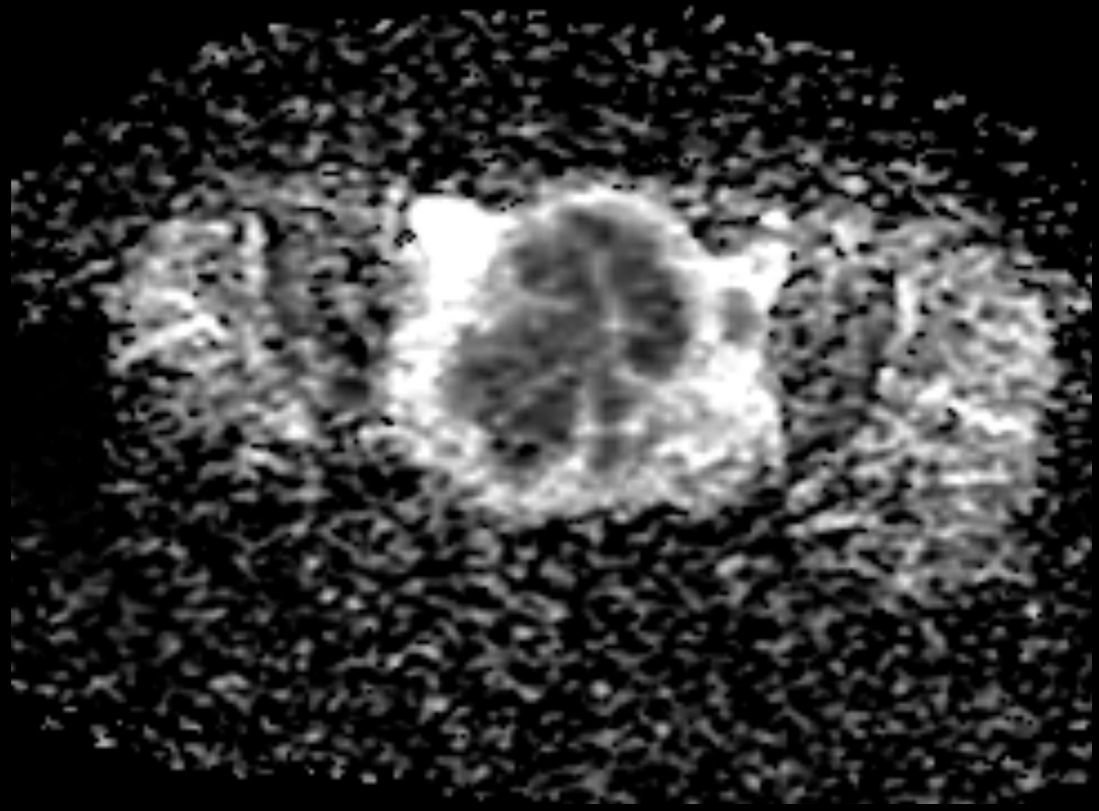
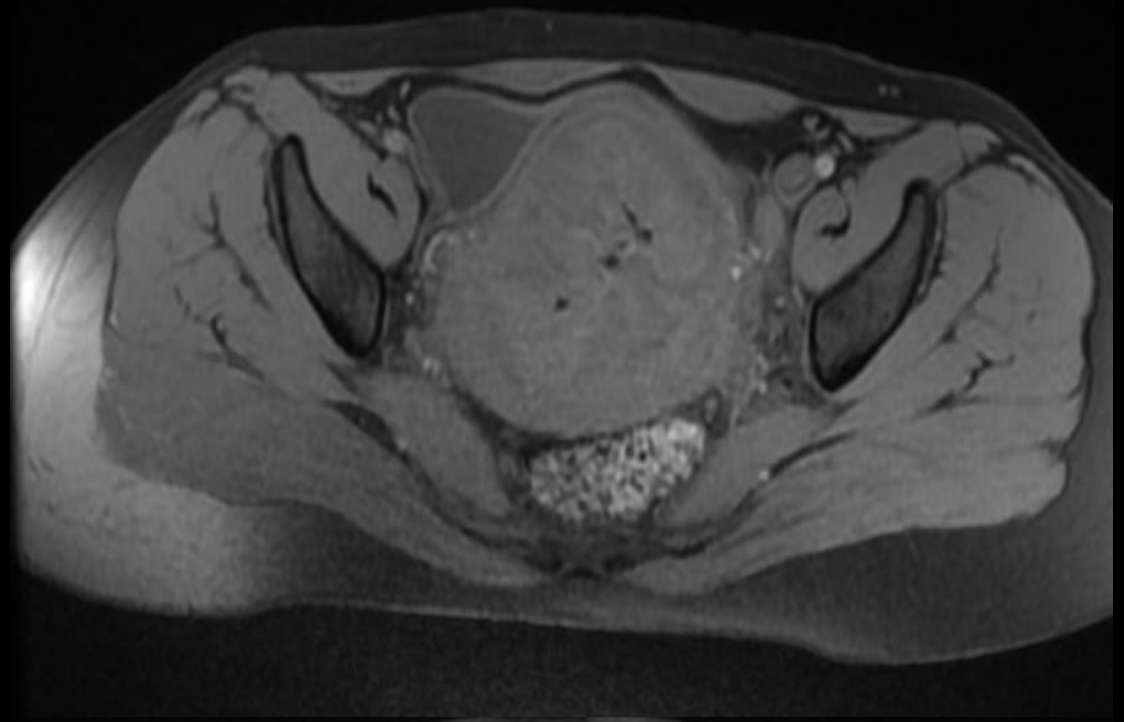
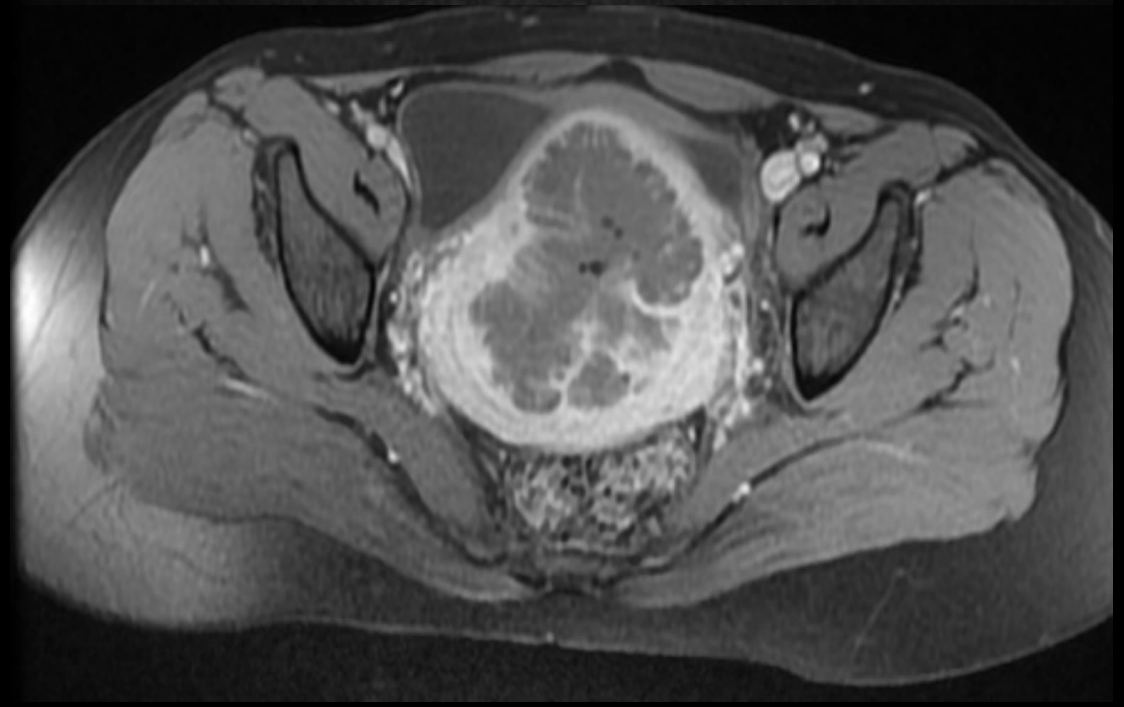
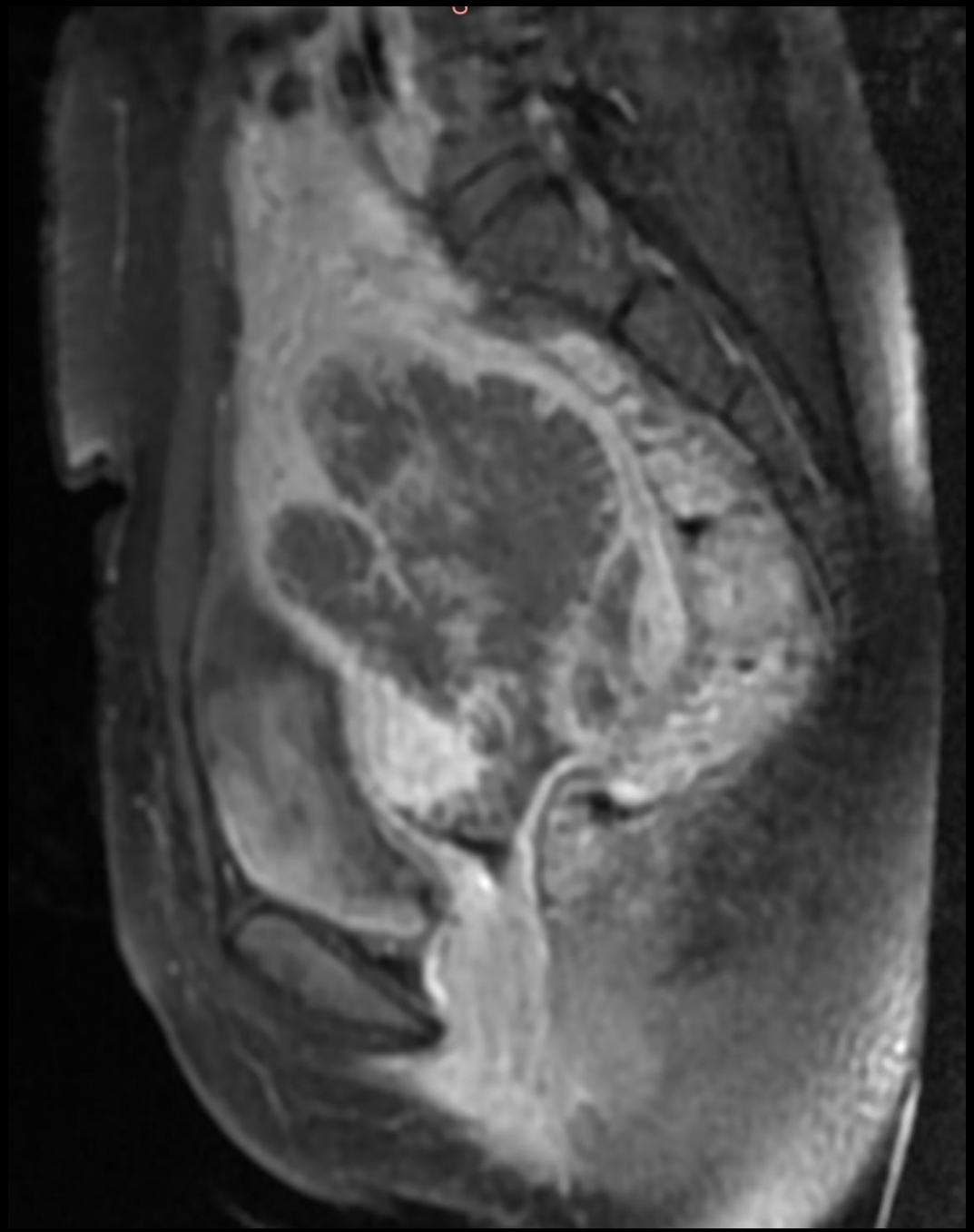


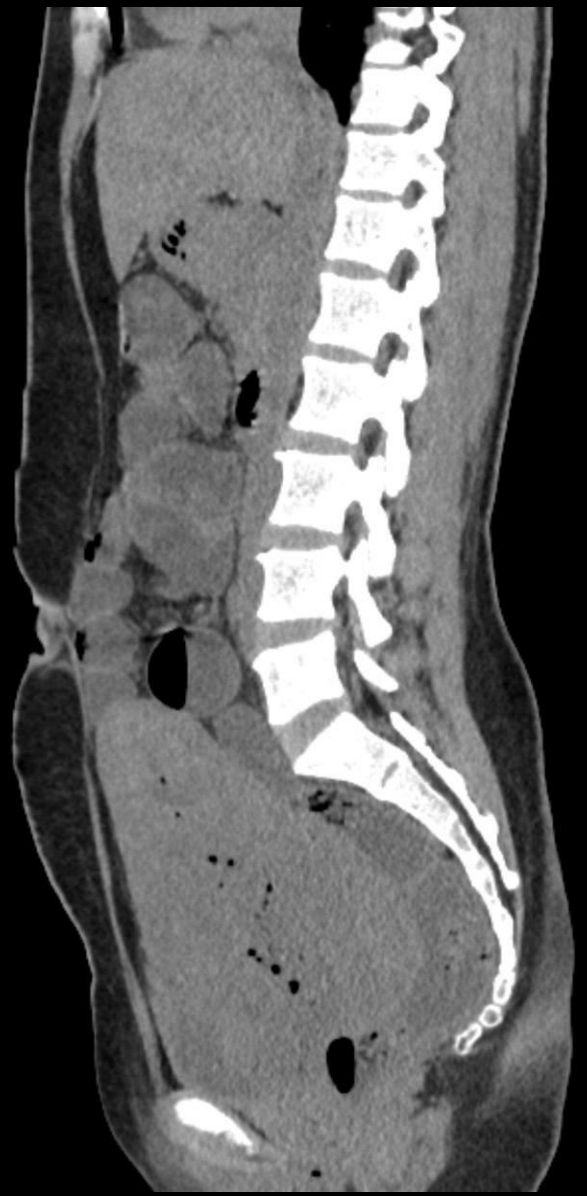
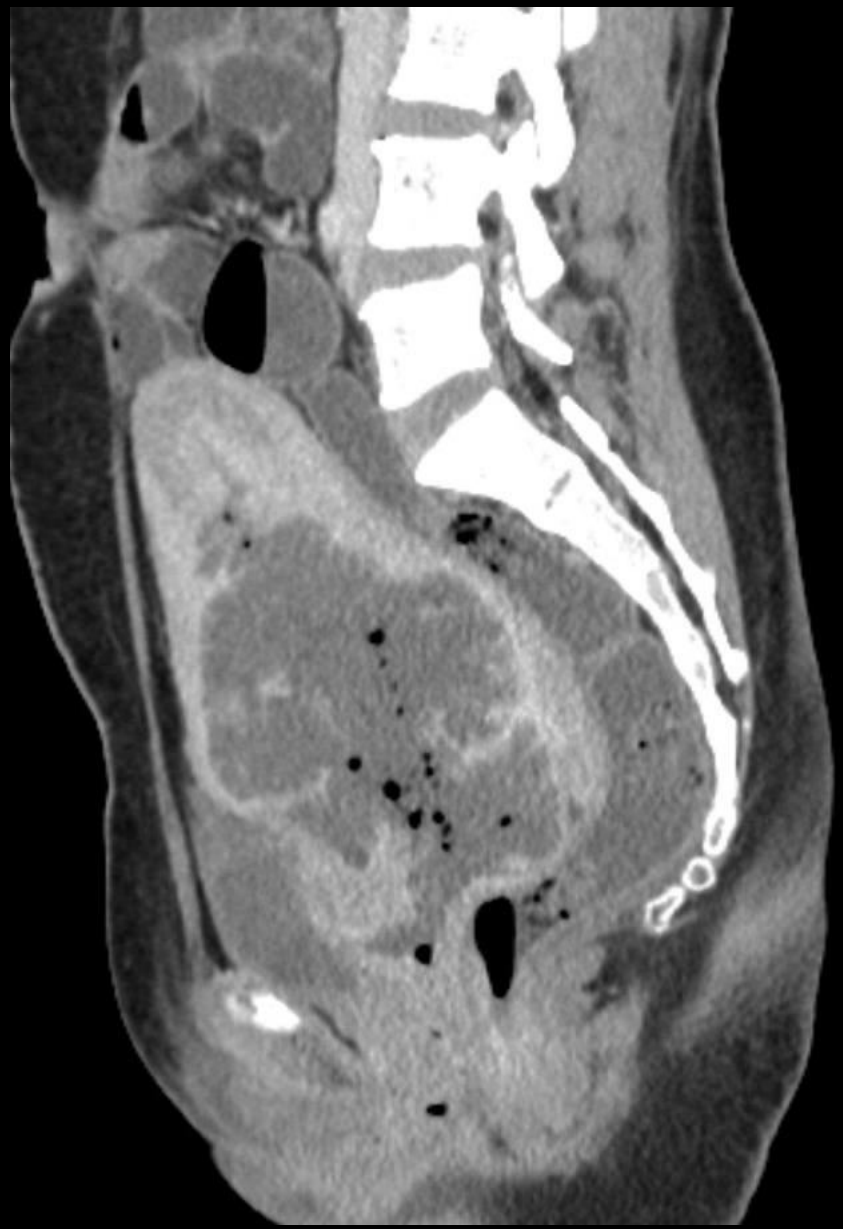
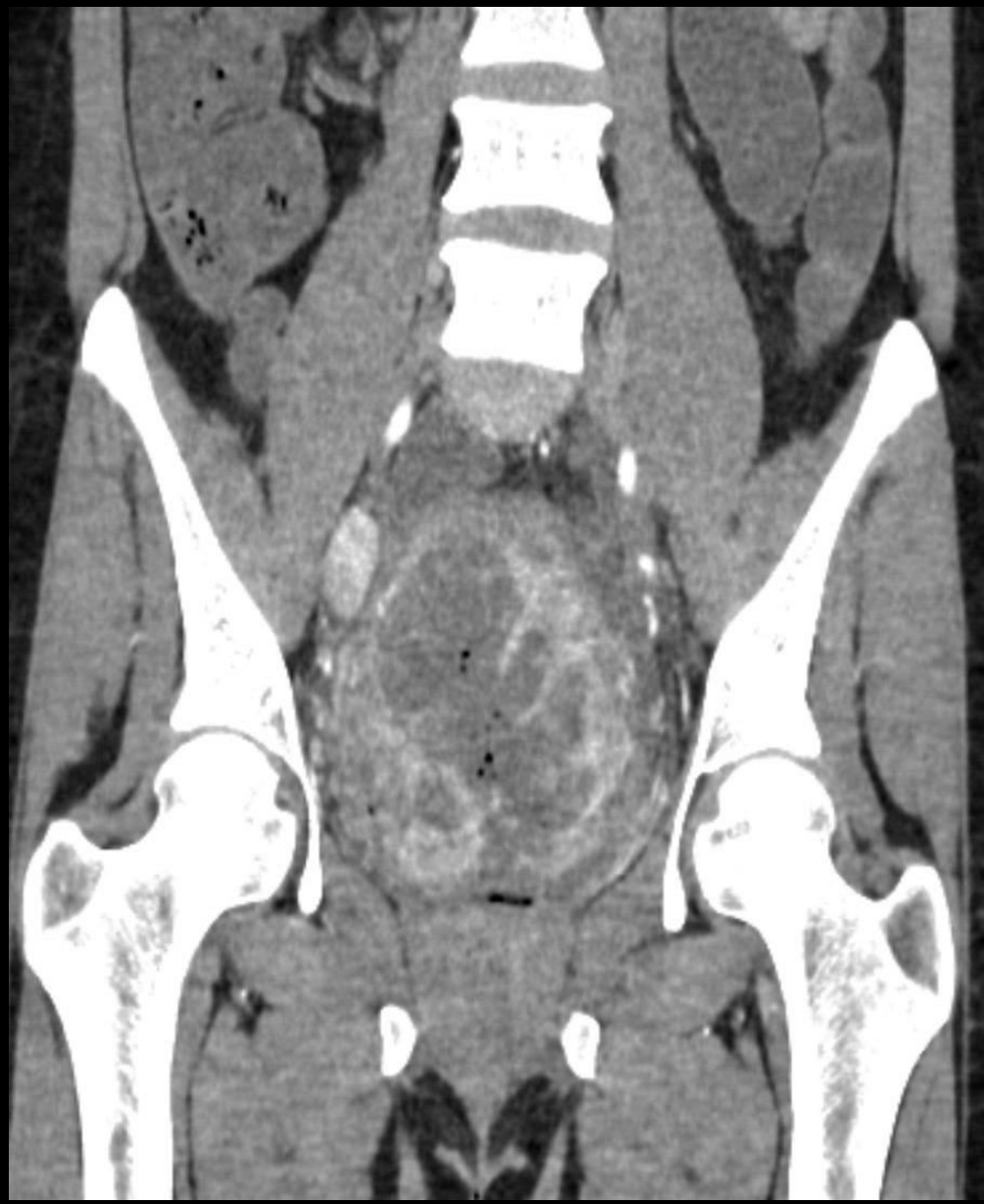








On MRI, the lesion appeared aggressive, but lacked myometrial invasion. A diagnosis of GTN, likely choriocarcinoma, was made considering that a small subset of choriocarcinomas can present without myometrial involvement

DEPARTMENT OF LABORATORY MEDICINE

Slide Review- Stained slides

HISTOPATHOLOGY REVIEW REPORT

Sample ID : **NCI/J/HR/200/2025**

Clinical Details : H/O foul smelling PV discharge. B HCG raised.

Specimen : 1. Endometrial tissue.
2. Endocervical tissue.
Received three blocks & slides labelled as HP/1256-57-58/25.

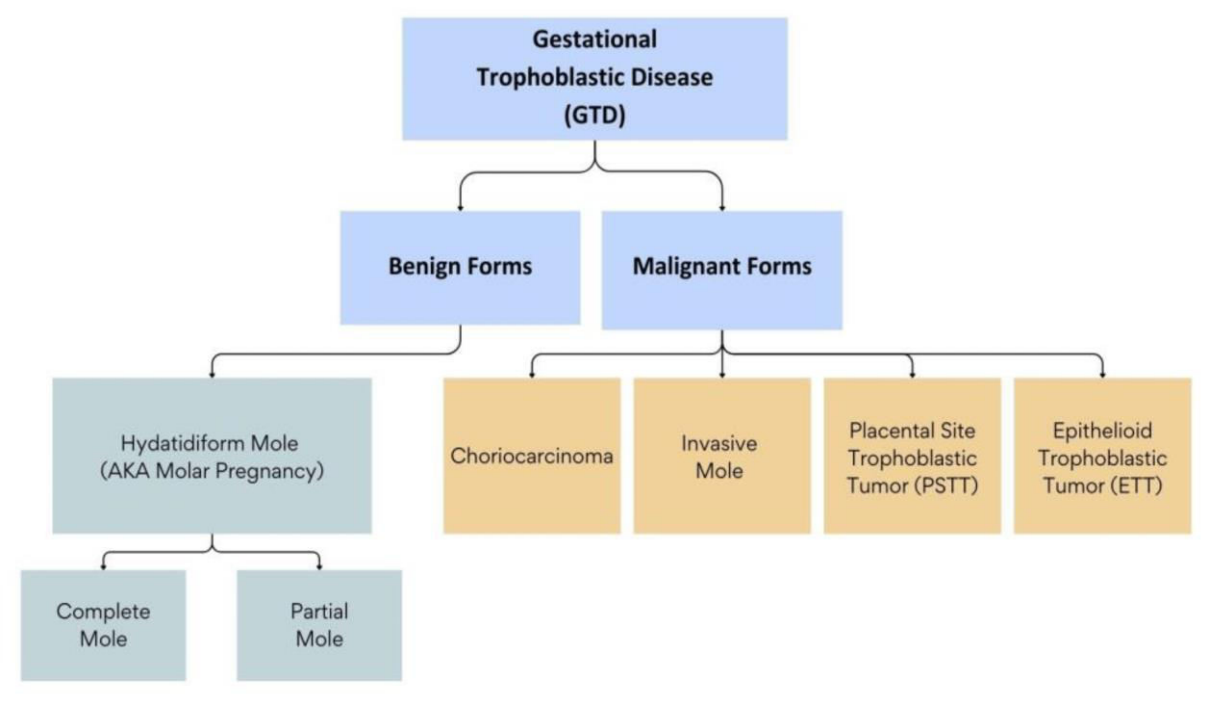
Microscopy : Three outside slides reviewed labelled as HP/1256-57-58/25. Tissue from endometrium & endocervix submitted reveal similar morphology. They show irregular tissue fragments showing sheets of tumor cells. Show large hyperchromatic nuclei, high N:C ratio & moderate to scanty cytoplasm. Many clusters of round to oval cells with clear cytoplasm, round vesicular nuclei are seen. Brisk mitoses are present. Extensive areas of necrosis, hemorrhage and neutrophilic infiltrate are seen. Syncytitrophoblastic cells not seen.

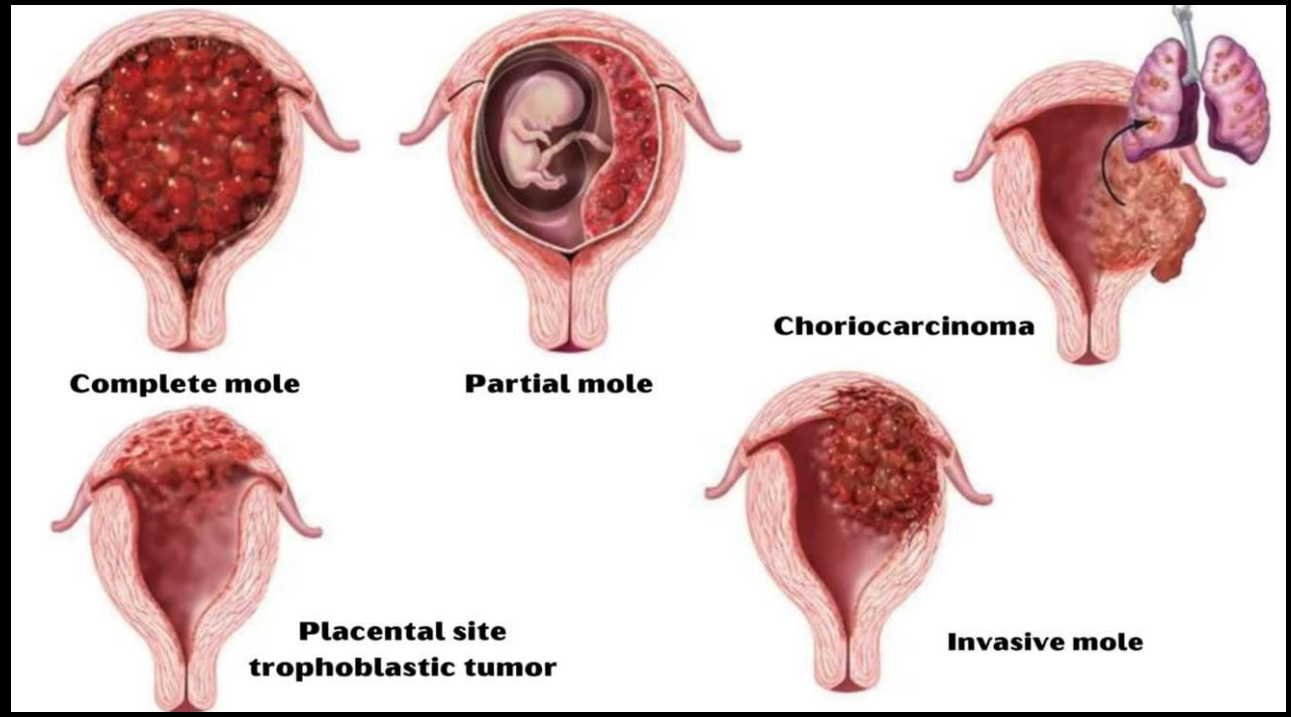
Impression :

Impression : Gestational trophoblastic neoplasm.
Differentials to be considered ?Choriocarcinoma
? PSTT (Placental site trophoblastic tumor).

GESTATIONAL TROPHOBLASTIC DISEASE

- Group of disorders from abnormal trophoblastic proliferation.
- Ranges from benign hydatidiform mole to malignant GTN

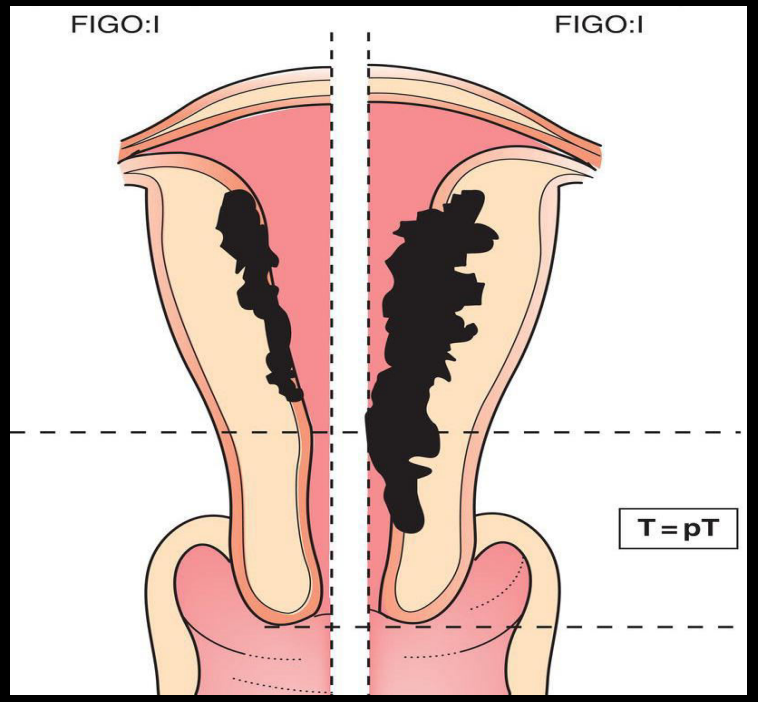


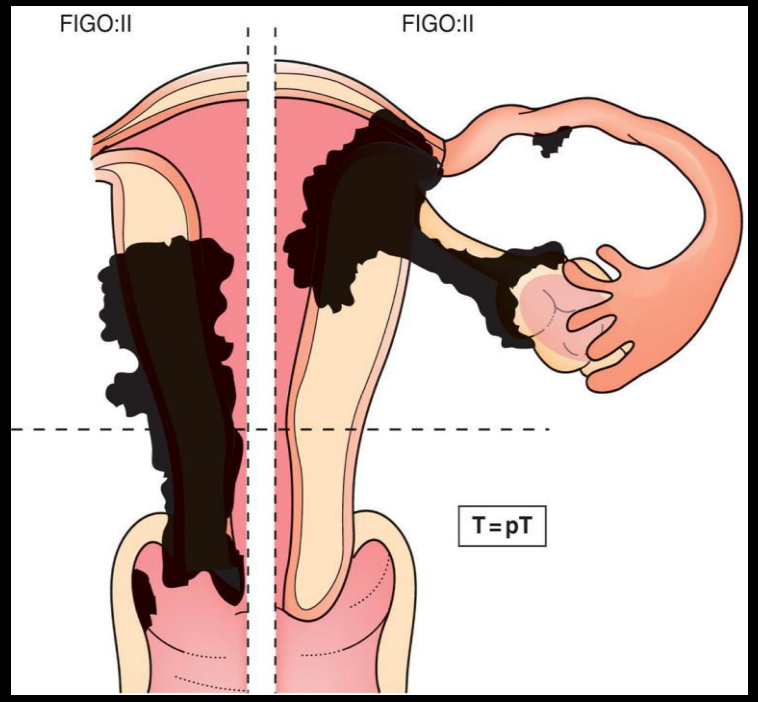


Disease	USG Features	CT Features	MRI Features
Hydatidiform Mole	- Enlarged uterus with heterogeneous mass - “Snowstorm” or “cluster of grapes” appearance - No fetal parts in complete mole - Theca lutein cysts in ovaries	- Enlarged uterus with low-density mass - Possible cystic areas (<3CM) - High vascularity if contrast used	- High T2 signal molar tissue - No myometrial invasion (in complete mole) - Theca lutein cysts visualized
Invasive Mole	- Heterogeneous myometrial mass - Color Doppler: high vascularity	- Uterine mass with myometrial invasion - Hemorrhage/necrosis - Lung metastases may be seen	- Disruption of junctional zone - T1 hyperintense areas (bleeding), Heterogeneous T2 signal
Choriocarcinoma	- Irregular, echogenic mass - Often no cystic spaces - Very high vascularity - No fetus	- Hypervascular uterine mass - Central necrosis/hemorrhage - Frequent metastases (lung, brain, liver)	- T1 hyperintense hemorrhagic foci - Intense contrast enhancement - Myometrial and extrauterine invasion
Placental Site Trophoblastic Tumor (PSTT)	- Ill-defined hypoechoic mass - Minimal vascularity - May mimic fibroid	- Solid uterine mass - Less hemorrhage/necrosis than choriocarcinoma - Rare metastasis	- Iso- to hypointense on T2 - Mild to moderate enhancement - Infiltrative growth, myometrial thickening
Epithelioid Trophoblastic Tumor (ETT)	- Well-circumscribed, solid mass - Hypoechoic or mixed echogenicity - Doppler: variable vascularity	- Discrete solid uterine mass - Calcifications may be present - Less necrosis than choriocarcinoma	- T2 intermediate signal - T1 iso- to hyperintense if hemorrhage - Moderate enhancement - May resemble carcinoma (clear margins)

STAGING

FIGO Stages*	Definition
	Primary tumour cannot be assessed
	No evidence of primary tumour
I	Tumour confined to the uterus
II	Tumour extends to other genital structures: vagina, ovary, broad ligament, fallopian tube(s), by direct extension or metastasis
III	Metastasis to lung(s)
IV	Other distant metastasis





TREATMENT

- Low-risk GTN should be treated with a single chemotherapeutic agent, either methotrexate or actinomycin D.
- Multiagent chemotherapy regimens are used to treat high-risk GTN. The most commonly used is EMA-CO (etoposide, methotrexate, actinomycin D, cyclophosphamide, and vincristine)
- Simple hysterectomy is treatment option in most cases of PSTT and ETT, since both tumors are less chemosensitive than choriocarcinoma

FOLLLOW UP

- β-hCG surveillance is recommended for *at least 12 months* after GTN treatment to ensure remission
- ***Imaging is not routinely performed unless complications are suspected.***
- US usually shows a *progressive decrease in the size and echogenicity of the uterine mass*
- Pelvic MR imaging, uterine lesions tend to decrease in size with concomitant *restoration of uterine zonal anatomy*

TAKE HOME MESSAGE

- GTD = Spectrum from benign to malignant disease
- Early diagnosis = excellent prognosis
- US is first-line, CT & MRI help in staging/complications
- Multimodal imaging guides management effectively.

Thank you!!!