

AMSER Rad Path Case of the Month

55-year-old perimenopausal female with
abdominopelvic pain

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Patient Presentation

- Presented to ED for worsening abdominopelvic pain
- Clothes are tighter fitting, noted hard lump near belly button
- No regular OBGYN follow up
- Still menstruating with irregular bleeding, absent vasomotor symptoms
- CT scan at outside hospital ED showed 15 cm mass arising in the pelvis/lower abdomen
- Referred to GYN oncology for further management
- Abdominal exam notable for palpable mobile mass below umbilicus and mobile mass on bimanual exam

Pertinent Labs

- CA 125 – 25.1
 - Normal range < 35 in postmenopausal women, < 50 premenopausal
- CBC and CMP unremarkable

What Imaging Should We Order?

ACR Appropriateness Criteria

Variant 1:

Postmenopausal acute pelvic pain. Initial imaging.

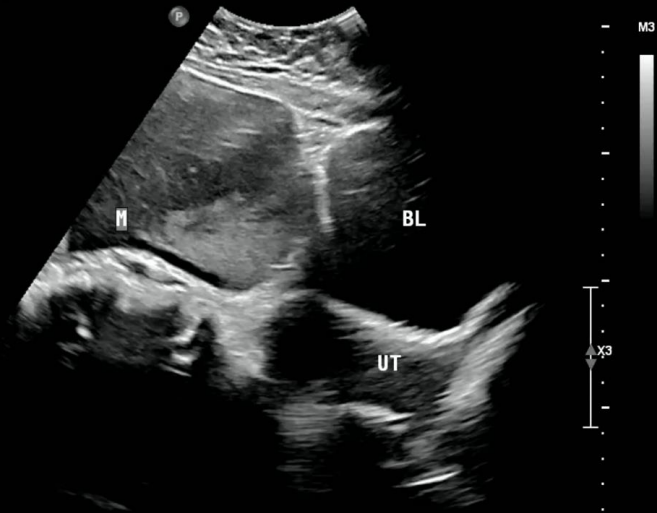
Procedure	Appropriateness Category	Relative Radiation Level
CT abdomen and pelvis with IV contrast	Usually Appropriate	☼☼☼
US pelvis transabdominal	Usually Appropriate	○
US pelvis transvaginal	Usually Appropriate	○
MRI pelvis without and with contrast	May Be Appropriate	○
CT abdomen and pelvis without IV contrast	May Be Appropriate	☼☼☼
MRI pelvis without contrast	May Be Appropriate	○
CT abdomen and pelvis without and with IV contrast	Usually Not Appropriate	☼☼☼☼

Appropriate scans obtained

TVUS Findings (unlabeled)

Gyn Pelvis WP
C5-1
21Hz
RS

2D
64%
Dyn R 60
P Low
HGen



Gyn Pelvis WP
C5-1
20Hz
RS

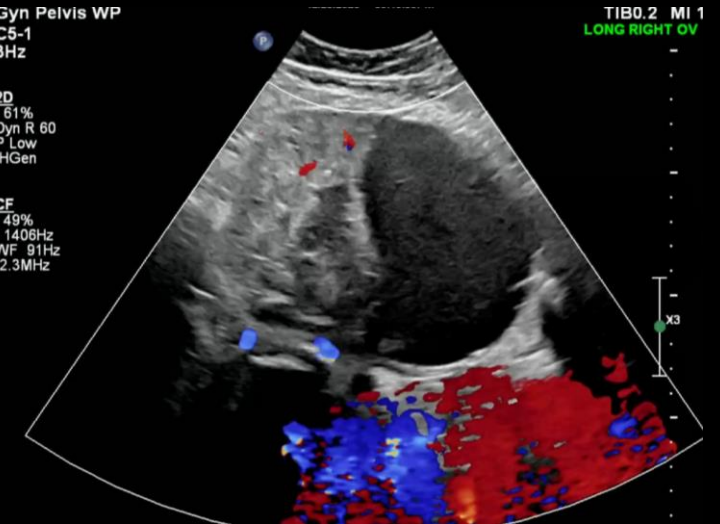
2D
64%
Dyn R 60
P Low
HGen



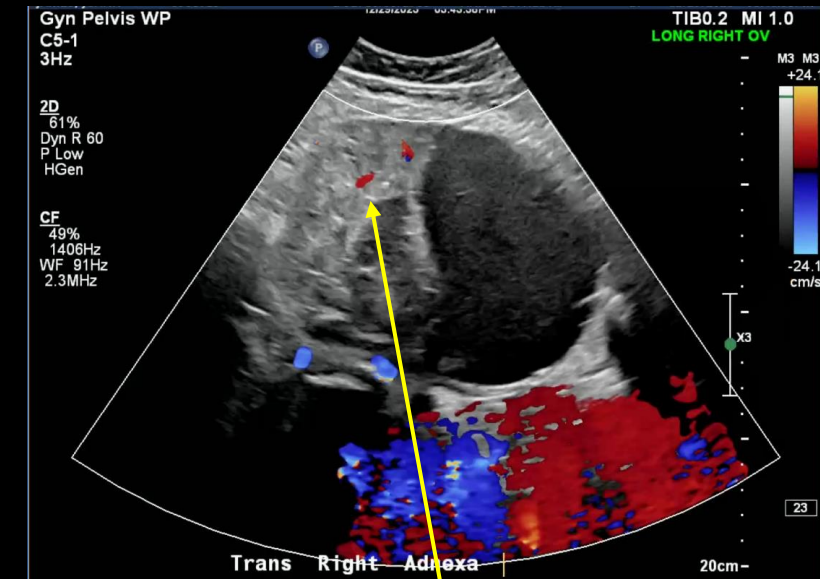
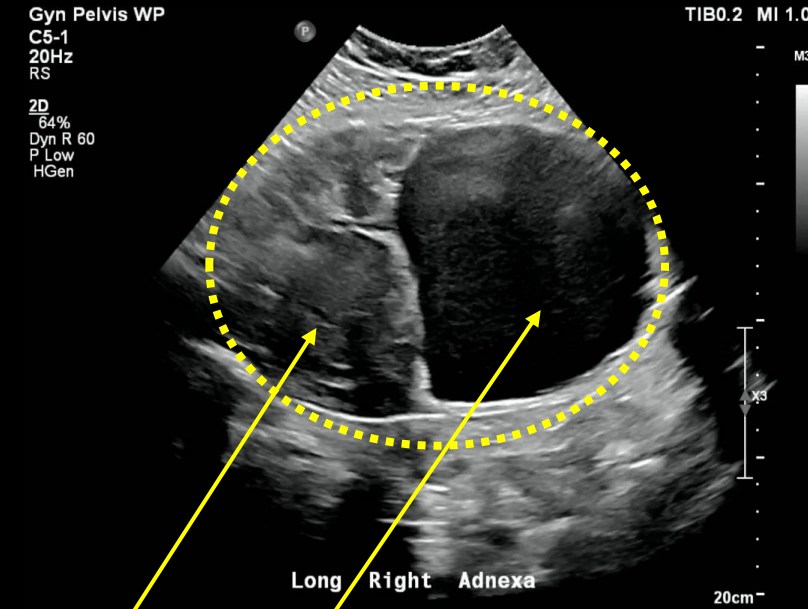
Gyn Pelvis WP
C5-1
3Hz

2D
61%
Dyn R 60
P Low
HGen

CF
49%
1406Hz
WF 91Hz
2.3MHz



TVUS Findings (labeled)

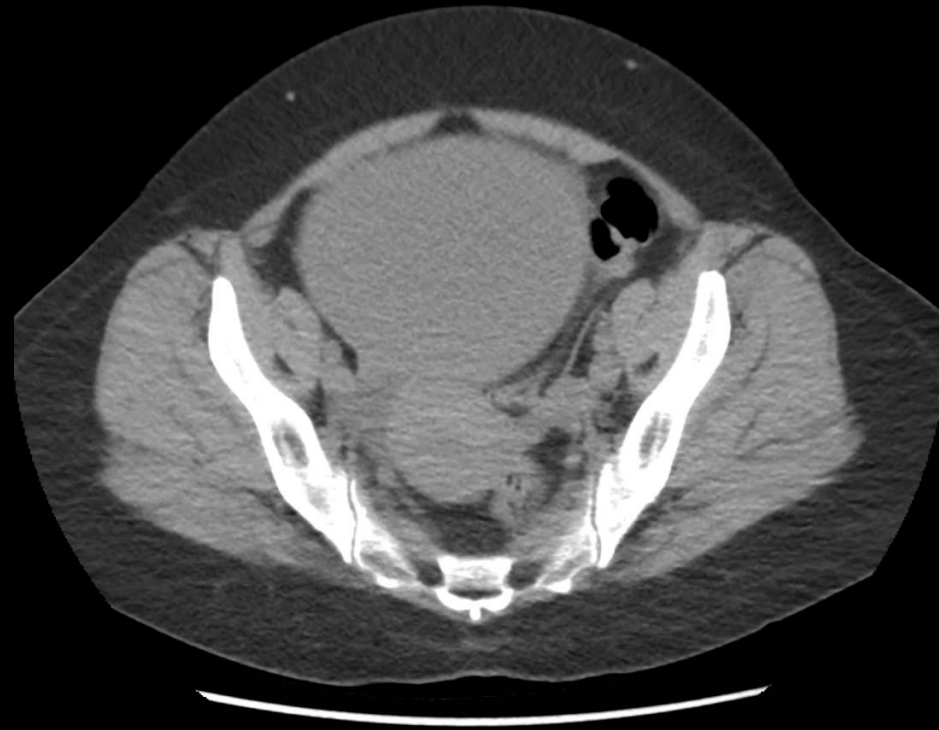


Pelvic mass with solid and cystic components

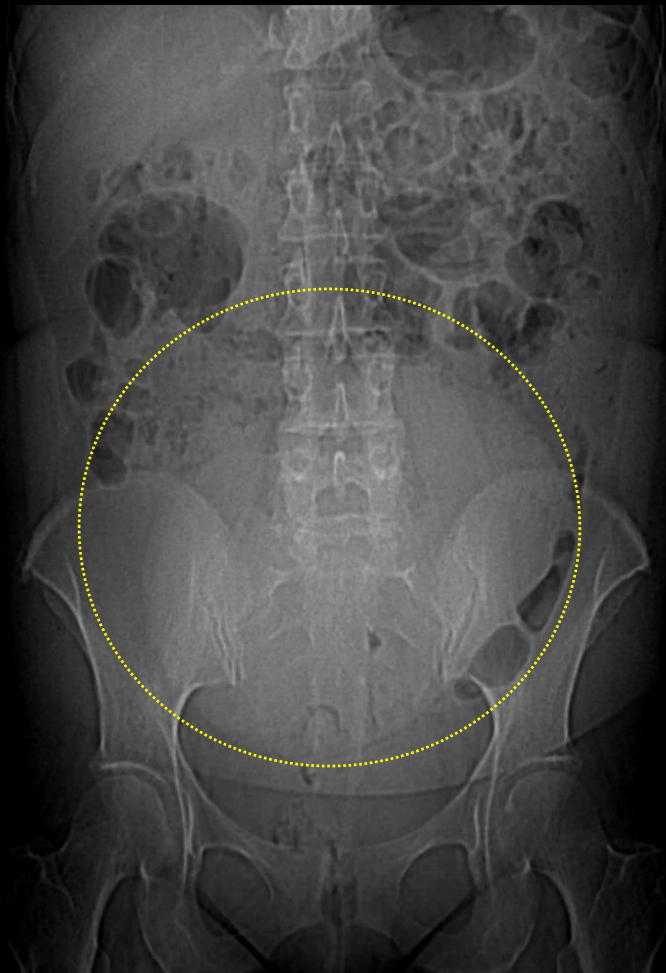
Some doppler flow seen within solid component



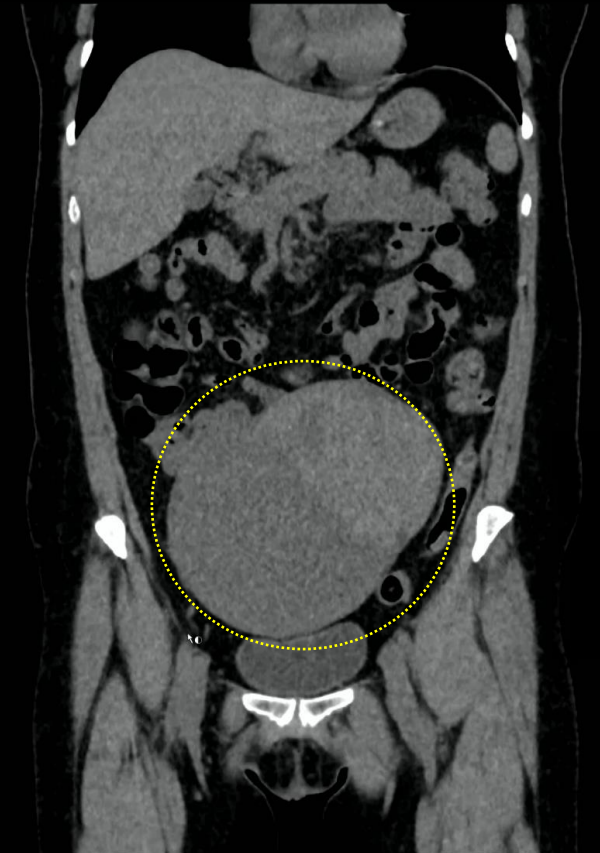
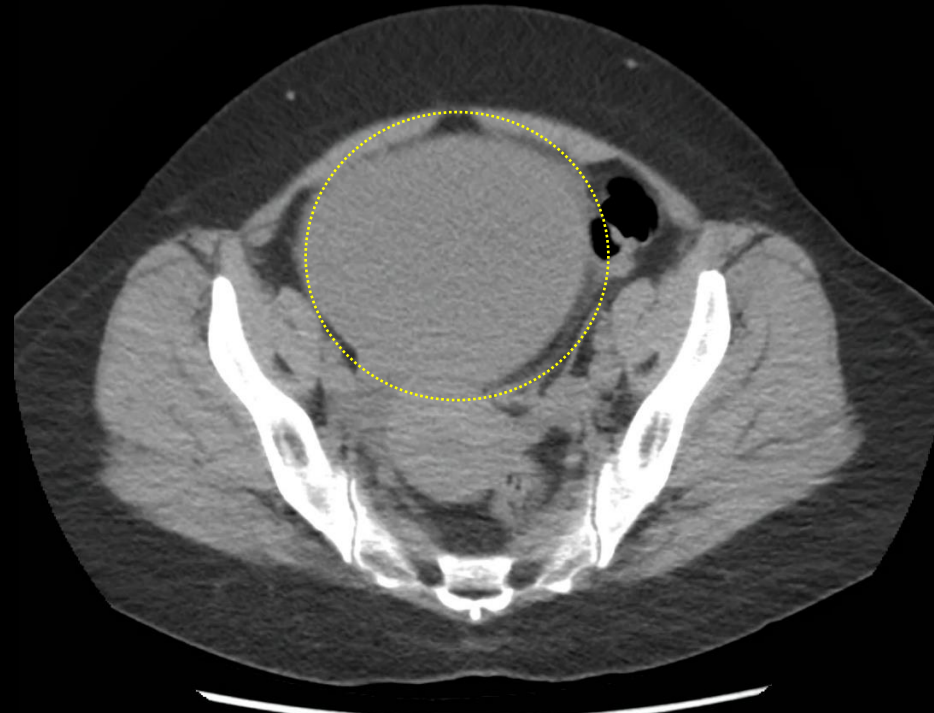
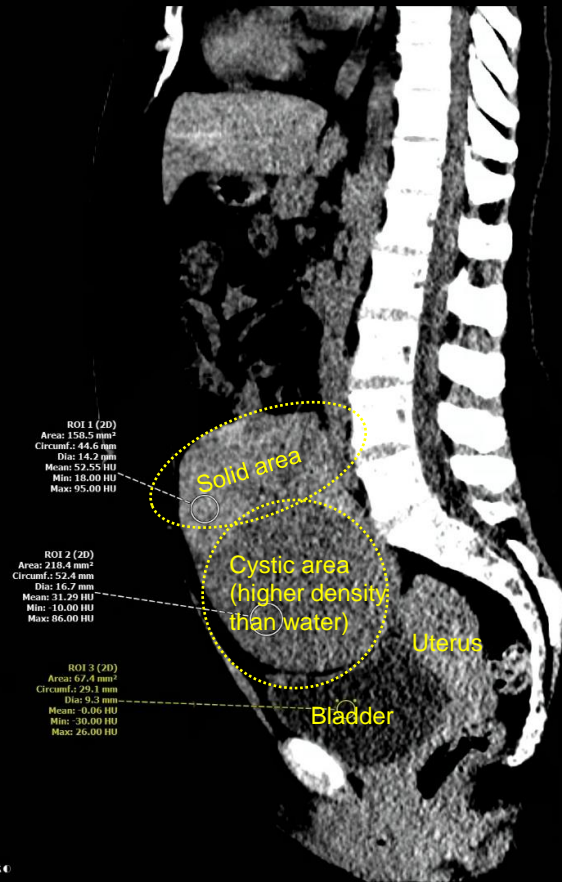
CT Findings (unlabeled)



Large non-obstructive
abdominopelvic mass

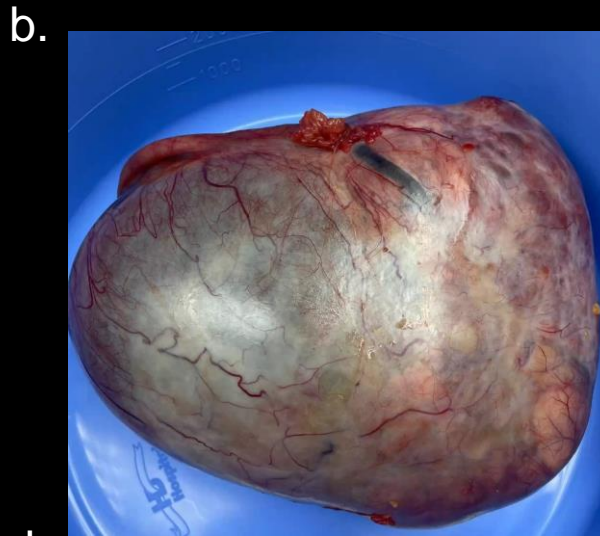
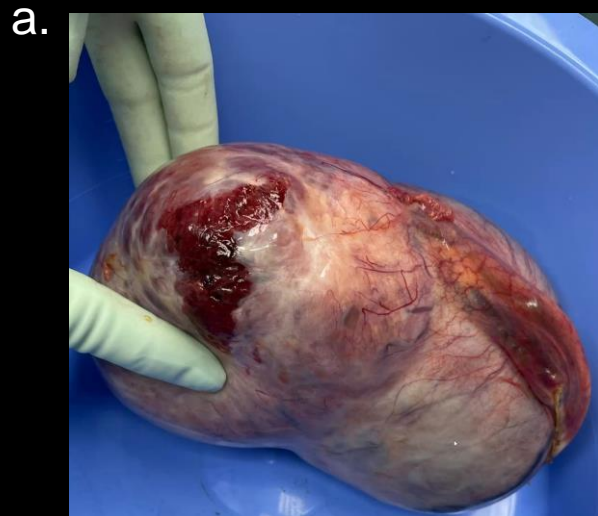


CT Findings (labeled)



~15 cm pelvic mass appearing to arise from uterus with solid and cystic components

Gross Images



a, b: 19 cm right ovary and fallopian tube with partial solid and cystic components

c. Dissected mass with copious mucinous content

d. Cystic/mucinous fluid drained from mass

Microscopic Images

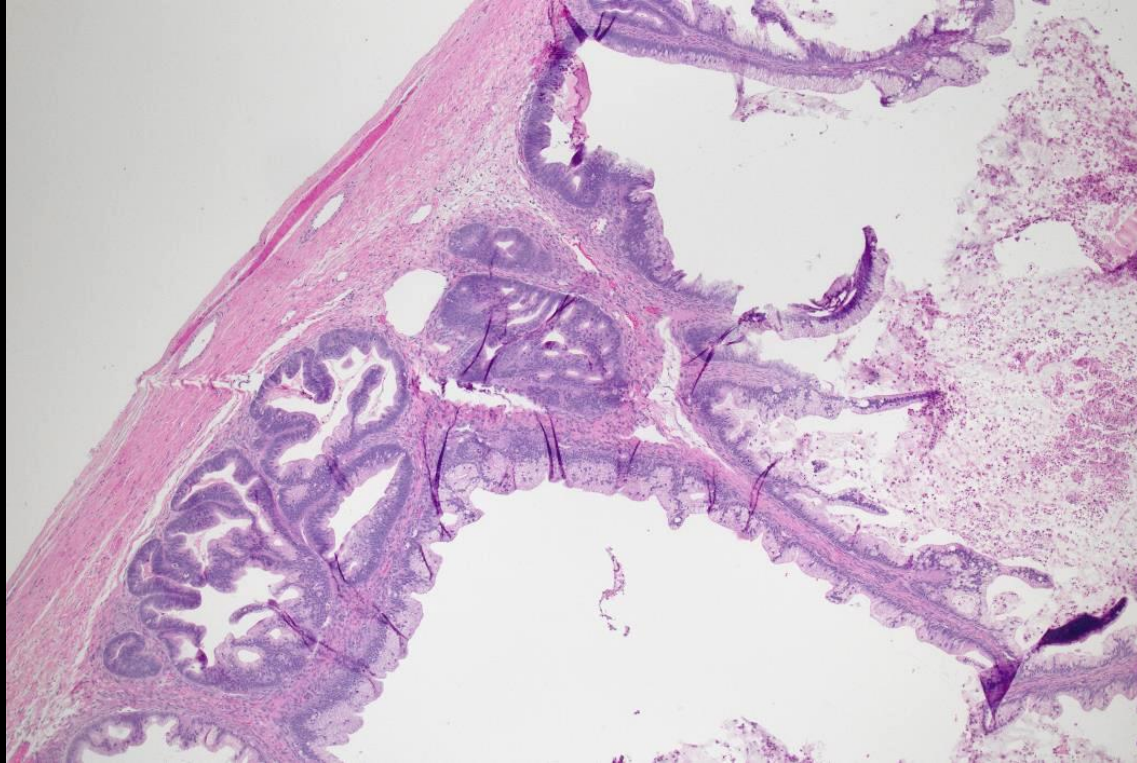


Image 1 (40x). Multiloculated cystic lesion lined by mucinous type epithelium, with areas showing simple mucinous lining (right lower) and areas with more complex architecture (left upper).

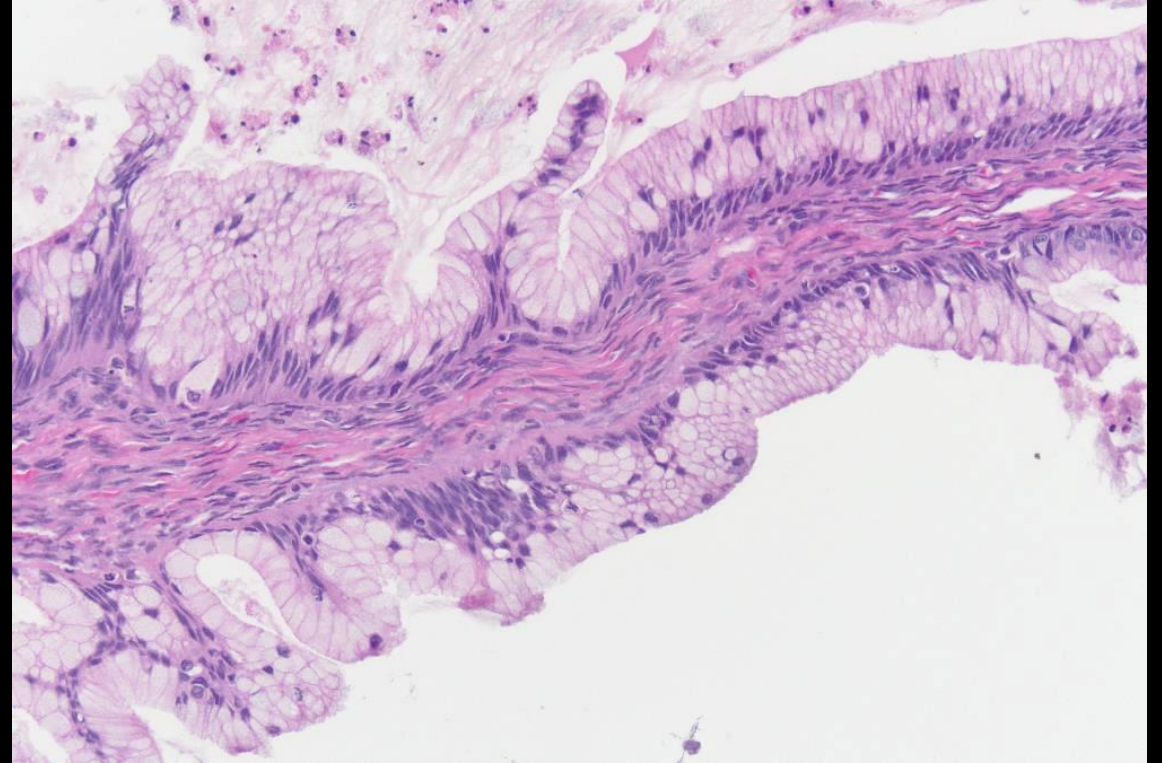


Image 2 (200x). Benign appearing epithelium with minimal nuclear stratification and abundant mucinous.

Final Dx:

Stage IA mucinous borderline neoplasm with
intraepithelial carcinoma confined to right ovary

Case Discussion

- Patient had a classic presentation for ovarian cancer with non-specific bloating and abdominal pain
 - However normal CA 125 level
- Underwent appropriate treatment with ex lap, TAH BSO with resection of 15 cm right adnexal mass, peritoneal biopsies, and omentectomy
- Frozen section pathology and final pathology results were concordant

Case Discussion

- Borderline tumors are sub-type of epithelial cell ovarian neoplasms
 - Incidence of ~2-5.5 per 100,000 women per year
 - Comprise 14-15% of primary ovarian neoplasms
 - Divided into serous (most common) and mucinous
- Diagnosis is clinical with combination of symptoms, imaging, and biopsy if applicable
 - CA 125 **not useful** for detection of borderline tumors
- Management is surgical treatment
 - Standard of treatment for postmenopausal women is TAH BSO, pelvic washings, omentectomy, peritoneal biopsy
 - Option for fertility sparing treatment for young patients with stage I disease desiring future pregnancy
- >95% 5-year survival rate for stage I-III cancer

Case Discussion

- First-line imaging for adnexal masses is ultrasound
- Serous tumors are typically bilateral whereas mucinous are typically larger and unilateral
- Notably, no imaging findings have been shown to be specific to borderline tumors
 - Findings suggestive of borderline OR malignant tumors include mural nodules, papillary projections, enhancing solid components, and thickened walls and septa
- Intraperitoneal spread is a poor prognostic factor for borderline tumors

References

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