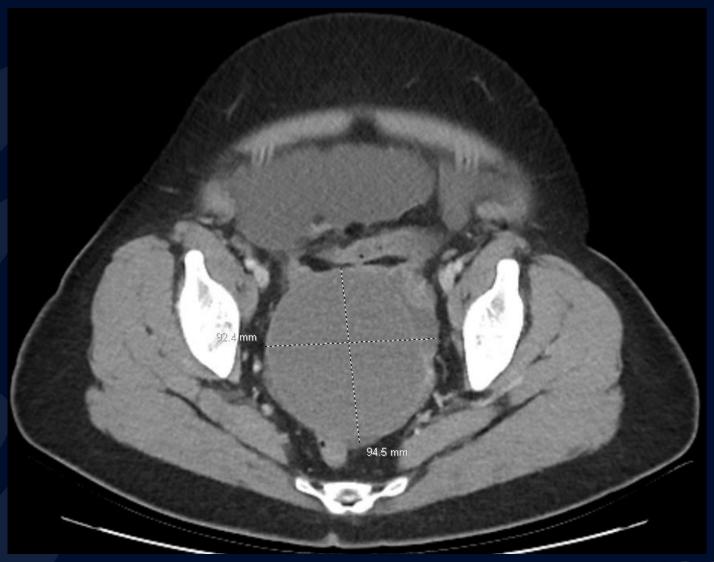
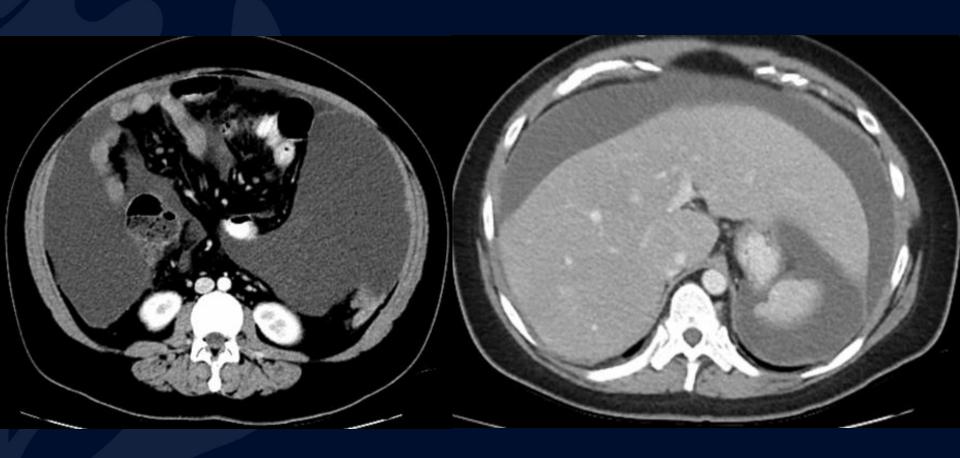
28-year-old female with fatigue, weight gain and abdominal pain

Kyle Murphy, MS3

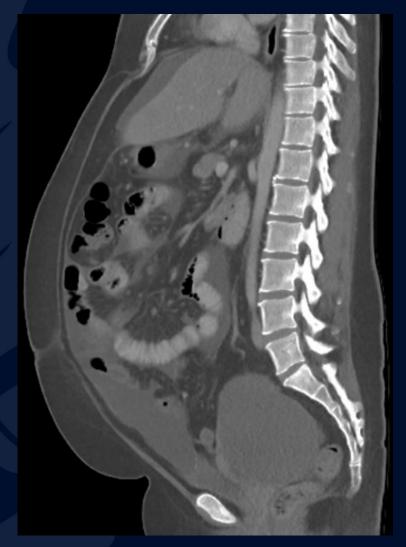


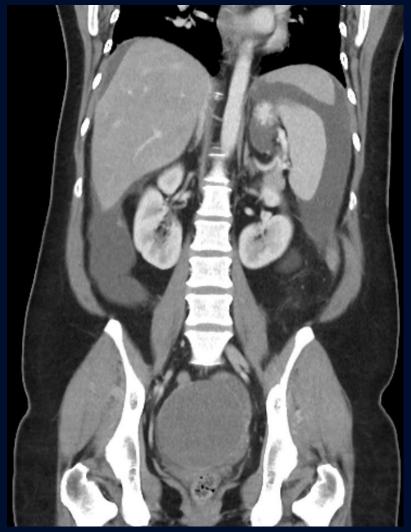












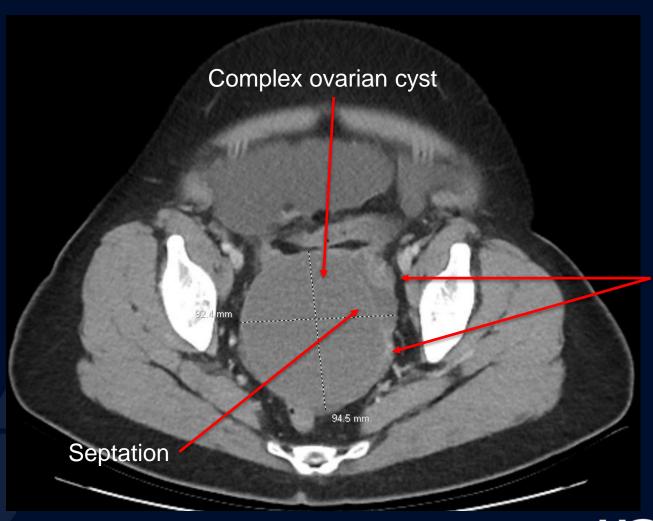






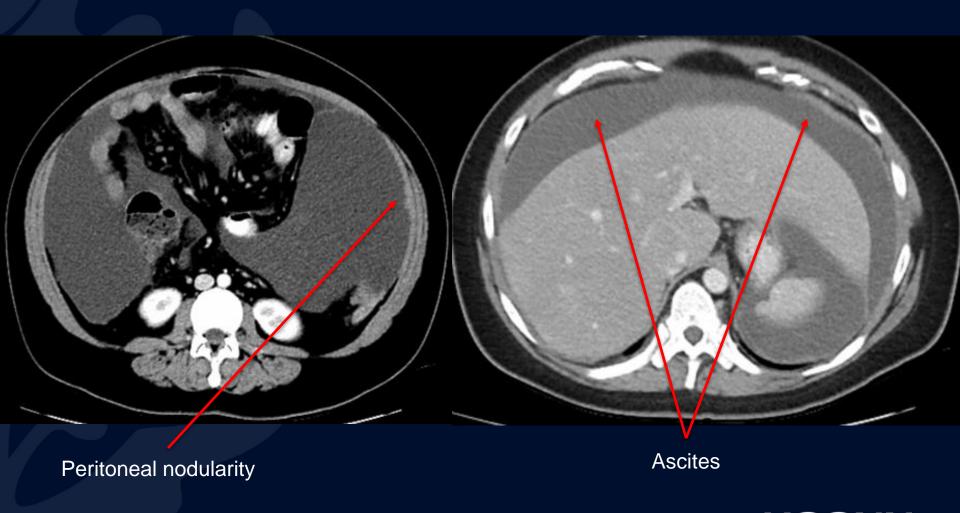
Low-grade Serous Carcinoma (LGSC)





Peripheral solid component

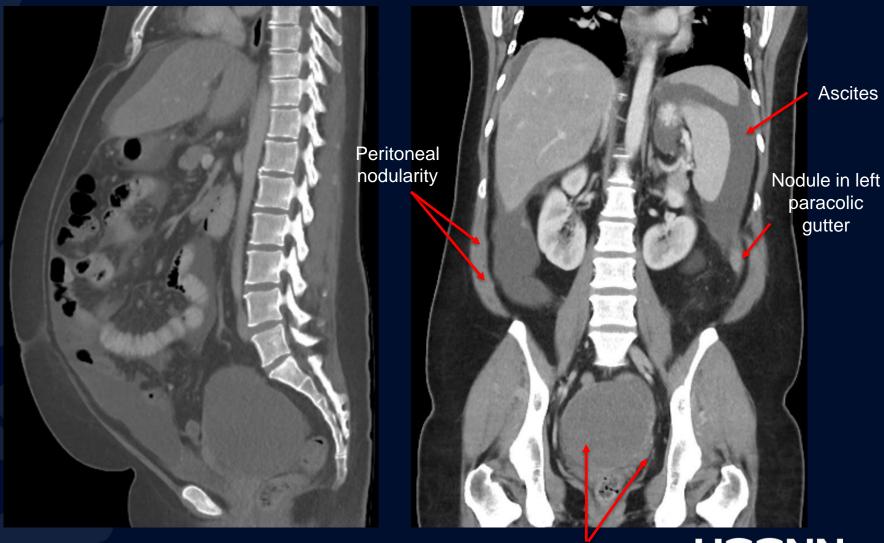






CT Sagittal Pre-contrast

CT Coronal Post-contrast



Predominantly cystic ovarian mass with peripheral solid component



Low-grade Serous Carcinoma

Malignant ovarian epithelial tumor which shows destructive invasion, mild to moderate cytologic atypia, and relatively low proliferative activity

- Predominantly cystic with septations and papillary solid components.
- Bilateral in majority of cases
- LGSC accounts for 2% of all epithelial ovarian cancers and 4.7% of serous ovarian carcinoma
- Most commonly affects women at a younger age than high grade serous carcinoma; median age
 of diagnosis 43-47
- Rarely associated with BRCA mutations or strong family history of breast / ovarian cancer

Treatment

- Complete staging laparotomy and tumor debulking (cytoreduction)
 - Includes hysterectomy with bilateral salpingo-oophorectomy, pelvic and paraarortic node biopsies, omentectomy, peritoneal biopsies and washings
 - More conservative surgery may be done alternatively in women of reproductive age with stage I disease
- Chemotherapy after cytoreductive surgery
- Neoadjuvant chemotherapy before cytoreduction surgery in patients with unresectable disease
 - Includes bulky disease in difficult-to-reach areas (porta hepatitis, lesser sac, roof of mesentery), extensive surrounding organ or sidewall invasion, or stage IV disease



Imaging Findings

In general, one cannot definitively distinguish serous from mucinous neoplasms based solely on imaging features.

- Typically smaller than mucinous tumors on presentation.
- Often unilocular and homogenous
- Often bilateral
- Commonly have microcalcifications (psammoma bodies) seen on histology vs mucinous which may have intramural calcifications

Features that suggest a malignant versus benign cystic neoplasm include:

- Large size
- Thick irregular walls and septa
- Papillary projections
- Large soft tissue component
- Ascites
- Evidence of invasive spread or adenopathy



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