



核心課程編號：F6

腹脹

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109年02月20日



學習目標

PGY	UGY
<p>知識</p> <ol style="list-style-type: none">1. 知道腹脹之分類2. 瞭解超音波檢查	
<p>技能</p> <ol style="list-style-type: none">1. 可以正確執行理學檢查2. 基本超音波判讀3. 了解各腹脹原因之治療	
<p>態度</p> <ol style="list-style-type: none">1. 能細心執行理學檢查	



腹脹分類

- ❖ Ascites: cirrhosis, TB, tumor
- ❖ Bowel (intestinal obstruction, tumor)
- ❖ Tumor (GI or GYN)





Evaluation

❖ History taking:

Hepatitis? Alcohol consumption?

Body weight loss?

Bowel habit change?

GYN history?

Surgical history?

❖ Ultrasound: ascites? GYN or GI tumor?

❖ KUB: ileus?

❖ CT?



了解超音波檢查

❖ 超音波檢查是利用超高頻率的聲波，穿過人體時在不同組織介面對聲波的反射程度不同，將這些反射波收集起來，經由電腦的精密計算，呈現出體內的正常及異常的構造。因為超音波完全沒有輻射線，對人體沒有已知的傷害，相當安全，短期內經常做也沒問題，可應用於孕婦及胎兒的例行產檢。而且因超音波是一種非侵襲性檢查，更是健康檢查的一大利器。



超音波檢查

❖ 但須注意的是，因超音波無法穿透骨骼及空氣，因此對骨骼內病變以及內含空氣的消化道（胃以及大腸小腸）以及呼吸道（肺及氣管等）難以檢查，這是超音波檢查的限制。此外，對肥胖的受檢者，因脂肪會使超音波衰減，因此深層器官組織不易看清楚。



理學檢查

- ❖ 理學檢查叩診多為鼓音；聽診時阻塞初期可為高蠕動音，阻塞晚期則變為低蠕動音！
- ❖ 氣體過多須先分腸內與腸外積氣
- ❖ 腸內積氣以位置分為小腸，大腸或兩者皆有；再進一步分辨是屬機械性或麻痺性阻塞！
- ❖ 腸外積氣首先要想有無腸道穿孔，然而近日曾接受外科，婦產科剖腹手術或腹腔鏡手術亦須列入考慮！



Ascites

Cause of Nonperitoneal Ascites	Examples
Intrahepatic portal hypertension	Cirrhosis, Fulminant hepatic failure, Venooclusive disease
Extrahepatic portal hypertension	Hepatic vein obstruction (ie, Budd-Chiari syndrome), Congestive heart failure
Hypoalbuminemia	Nephrotic syndrome, Protein-losing enteropathy Malnutrition
Miscellaneous disorders	Myxedema, Ovarian tumors, Pancreatic ascites, Biliary ascites
Chylous	Secondary to malignancy, trauma , or portal hypertension



Ascites

Causes of Peritoneal Ascites	Examples
Malignant ascites	Primary peritoneal mesothelioma, Secondary peritoneal carcinomatosis
Granulomatous peritonitis	Tuberculous peritonitis, Fungal and parasitic infections (eg, <i>Candida</i> , <i>Histoplasma</i> , <i>Cryptococcus</i> , <i>Schistosoma mansoni</i> , <i>Strongyloides</i> , <i>Entamoeba histolytica</i>), Sarcoidosis, Foreign bodies (ie, talc, cotton and wood fibers, starch, barium)
Vasculitis	SLE, Henoch-Schönlein purpura
Miscellaneous disorders	Eosinophilic gastroenteritis, Whipple disease, Endometriosis

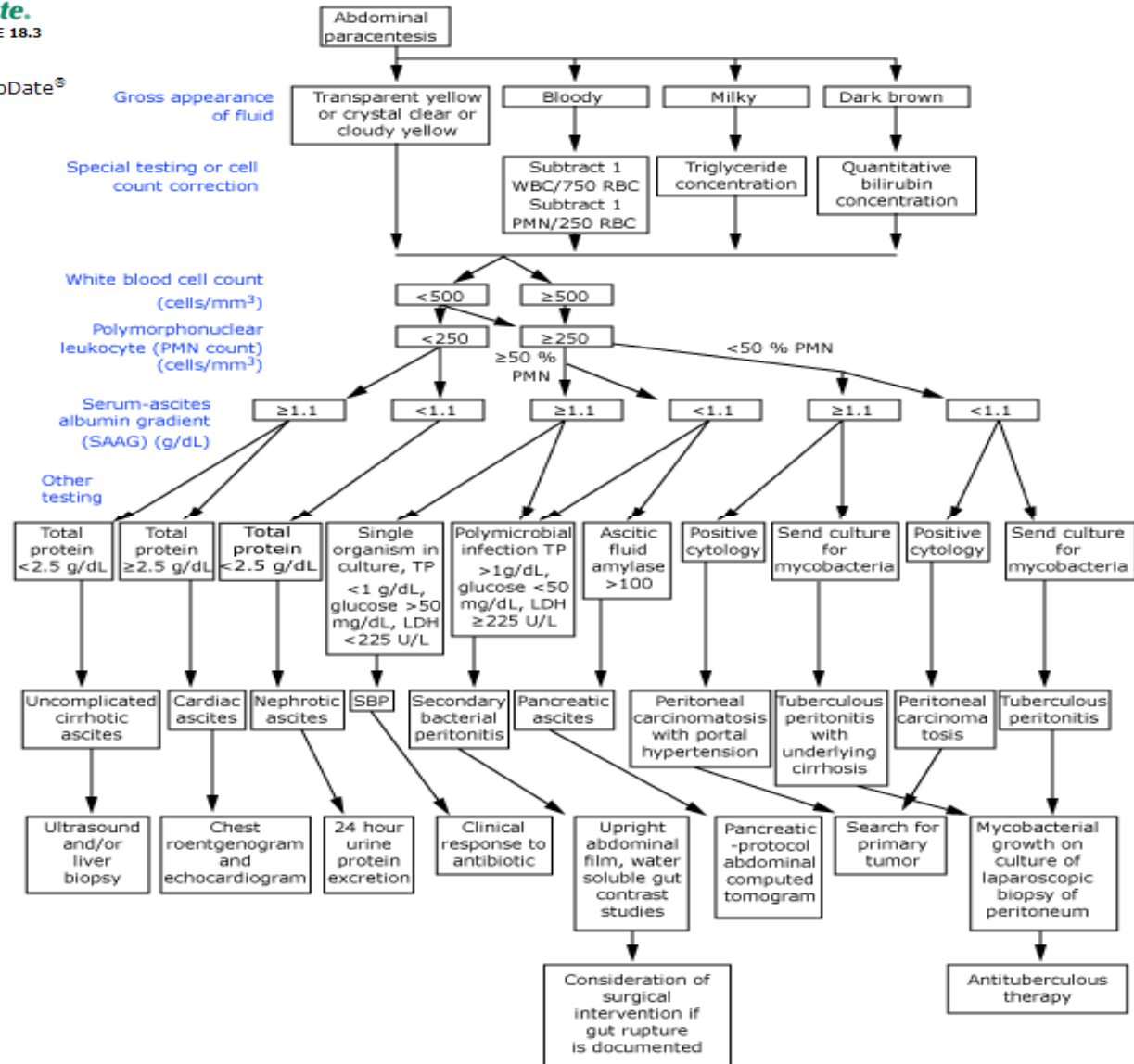


Ascites- paracentesis study

Differential diagnosis of ascites

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- Cytology: malignancy?
- Bacterial culture, TB
- PCR: infection?
- Biochemistry analysis



KUB- intestinal obstruction



Dilated bowel loop

Figure) Gallstone ileus pre-lithotripsy

- mechanical
- non-mechanical (ileus)



Volvulus with gangrene

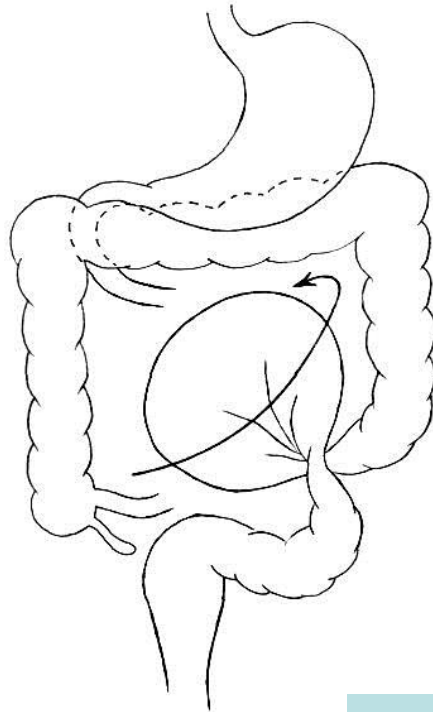


Intestinal obstruction

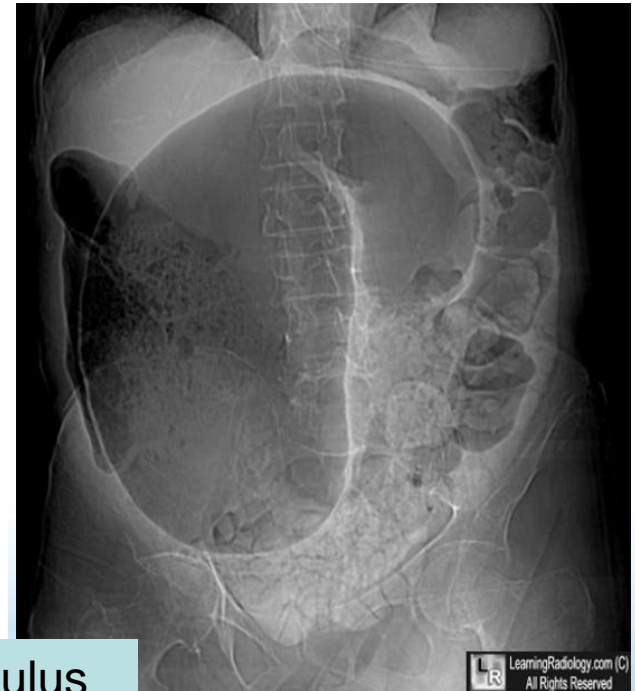
- ❖ Mechanical: bowel twists on itself (volvulus), hernias, impacted feces, abnormal tissue growth (adhesion band), or foreign bodies in the intestines.



adhesions



volvulus





Intestinal obstruction

❖ Non-mechanical:

- infection
- functional (colonic inertia)
- hypoperfusion (ischemia bowel)
- s/p abdominal surgery

Colonic inertia: retained radiopaque markers in ascending colon



Ischemia bowel with gangrene appearance





Intestinal obstruction

❖ Symptoms:

- abdominal cramping
- distention
- nausea, vomiting, and/or diarrhea
- failure to pass gas or stool

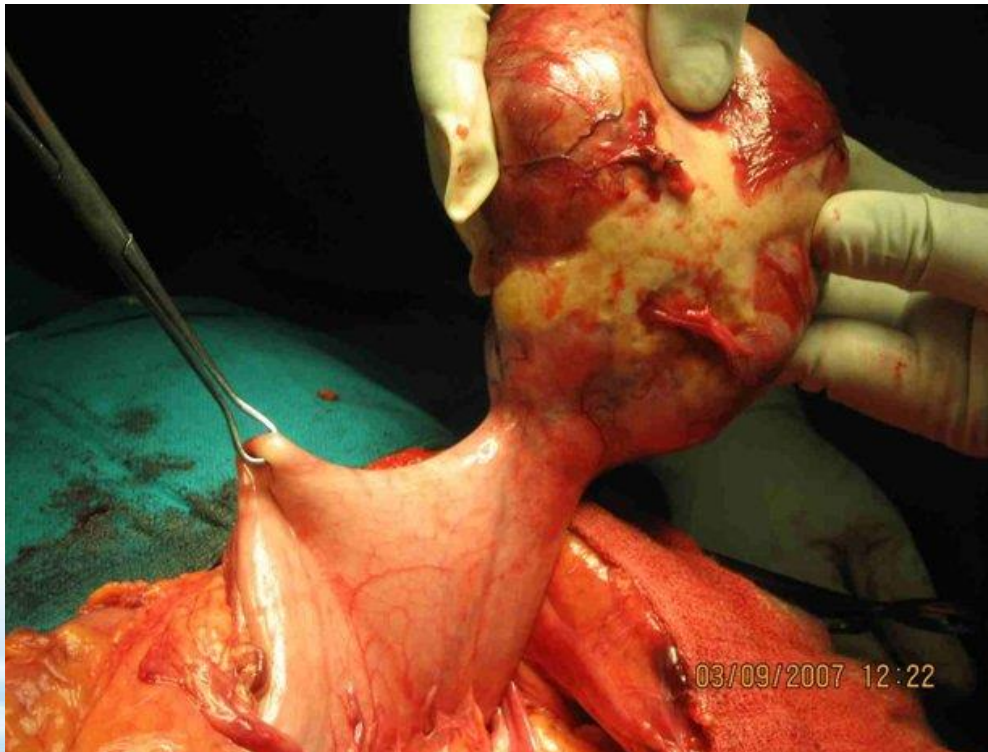
❖ Treatment:

- bowel rest
- nasogastric tube insertion
- intravenously fluid supplement
- may need surgery



Gastrointestinal stromal tumors (GIST)

- ❖ most common mesenchymal neoplasms of the gastrointestinal tract, can also originate in the mesentery and omentum





GYN-origin abdominal fullness



❖ Pelvic tumor:

1. Uterine myoma
2. Ovarian tumor

❖ Malignant ascites:

1. Ovarian/cervical/ endometrial cancer
2. Primary serous peritoneal carcinoma (PSPC)

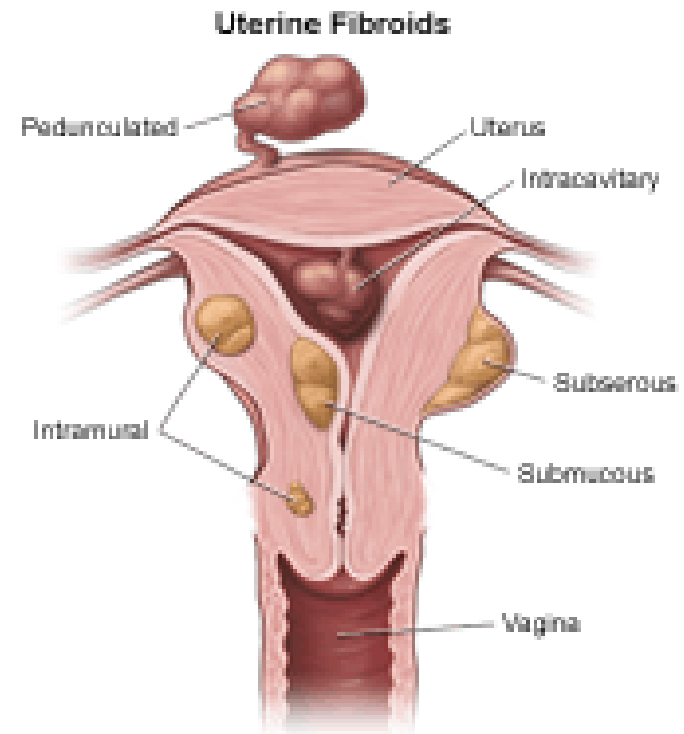
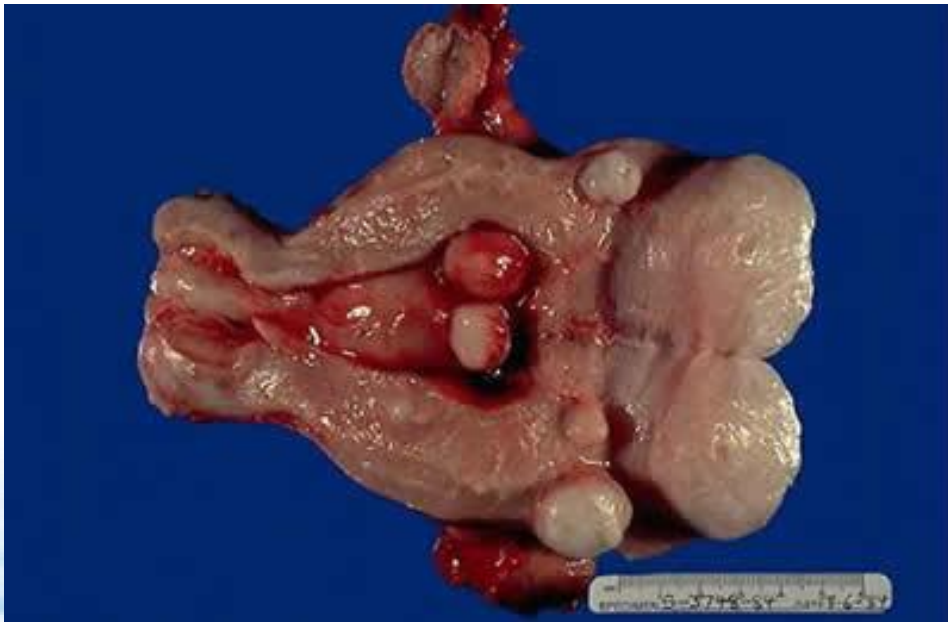
❖ TB peritonitis





Uterine myoma

- ❖ Most asymptomatic
- ❖ Follow up: growth size/rate, symptom, fertility desire





Uterine myoma

❖ Medical therapies:

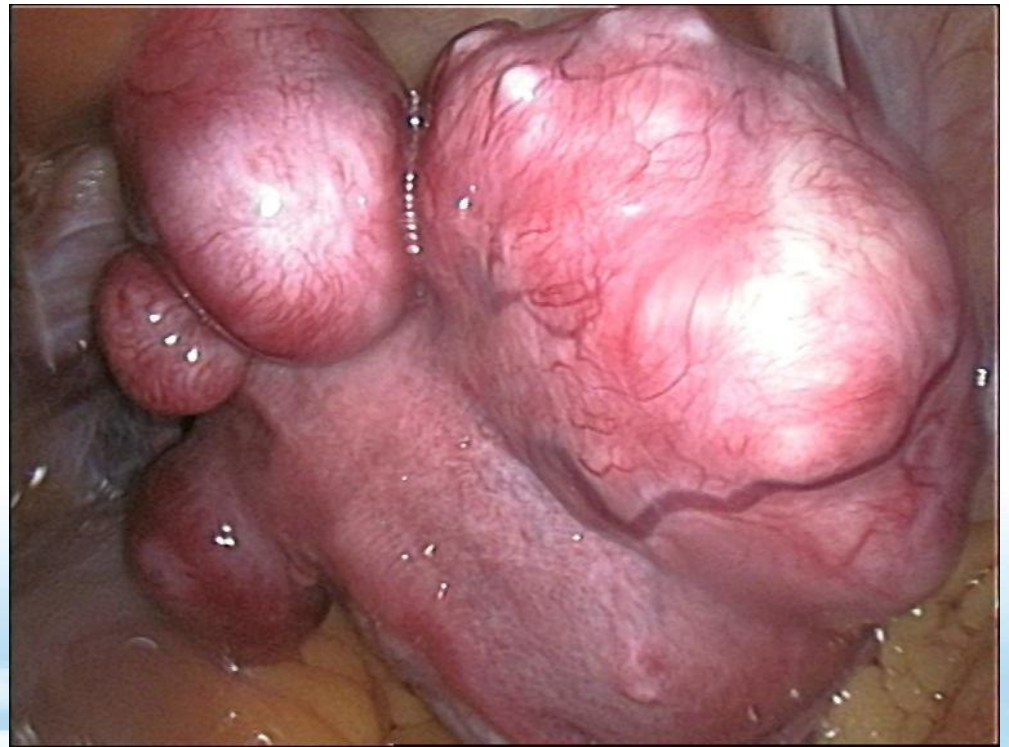
- Nonsteroidal anti-inflammatory drugs (NSAIDs).
- Oral contraceptive pills (OCPs).
- Progestational agents.
- Other oral agents identified in a literature search (e.g., mifepristone, tibolone, herbal preparations).
- Gonadotropin-releasing hormone (GnRH) agonists (both as primary therapy and as an adjunct to myomectomy or hysterectomy).



Uterine myoma

❖ Invasive therapies:

- Uterine artery embolization.
- Coagulation using cautery or laser.
- Myomectomy.
- Hysterectomy.





Ovarian tumor

❖ Neoplastic

- Germ cell
- Benign cystic teratoma
- Other and mixed

❖ Epithelial

- Serous cystadenoma
- Mucinous cystadenoma
- Fibroma
- Cystadenofibroma
- Brenner tumor
- Mixed tumor

❖ Other

- endometrioma

❖ Malignant tumor

teratoma





Germ cell tumor

- ❖ Teratoma
- ❖ Dysgerminoma
- ❖ Endodermal sinus (yolk sac) tumors
- ❖ Mixed germ cell tumors
- ❖ Rare OGCTs — pure embryonal carcinomas, nongestational choriocarcinomas, and pure polyembryoma



Metastatic tumor of ovary

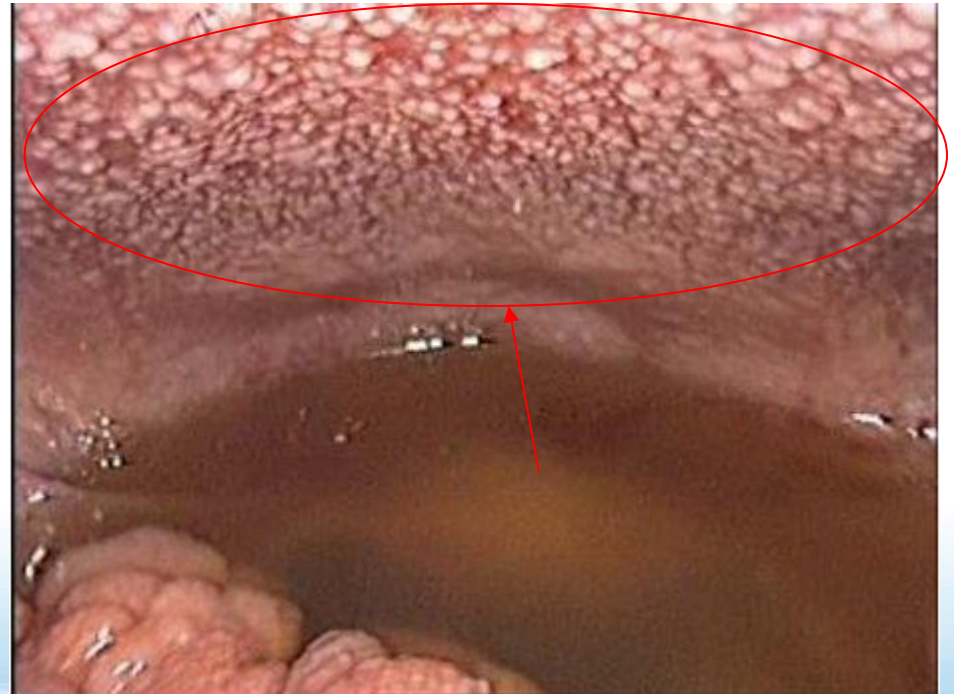
- ❖ Usually metastatic from the GI tract or breast carcinoma
- ❖ Often bilateral presence
- ❖ Treatment: surgical resection followed by chemotherapy





TB peritonitis

- ❖ Primary etiology or complicated by AIDS/HIV infection and the use of immunosuppressant drugs
- ❖ Can involve any part of the gastrointestinal tract from mouth to anus, the peritoneum and the pancreatobiliary system
- ❖ The most common site of involvement is the ileocaecal region
- ❖ Treatment: anti- TB medicine



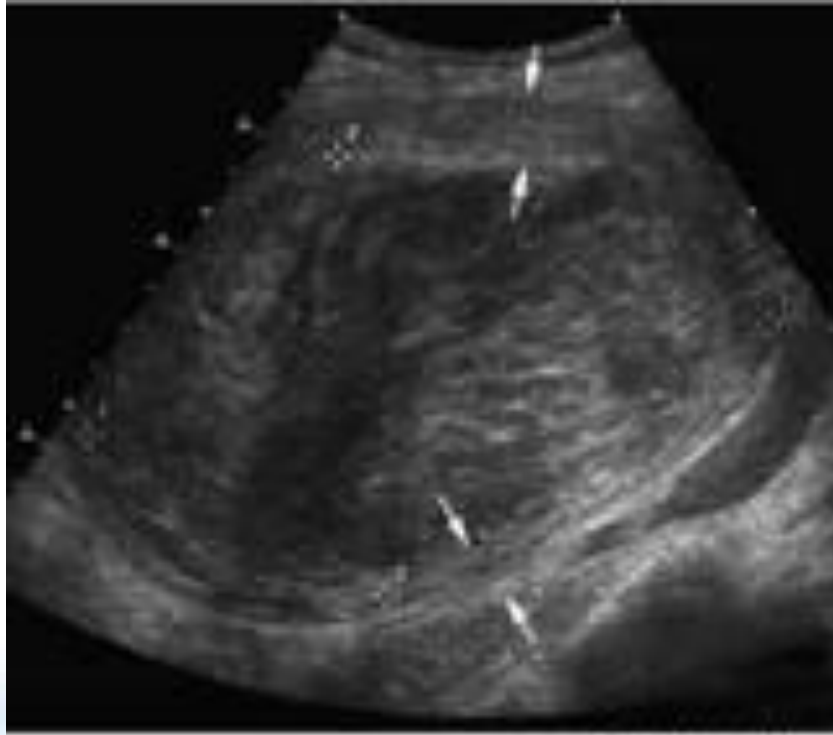


基本超音波結果判讀

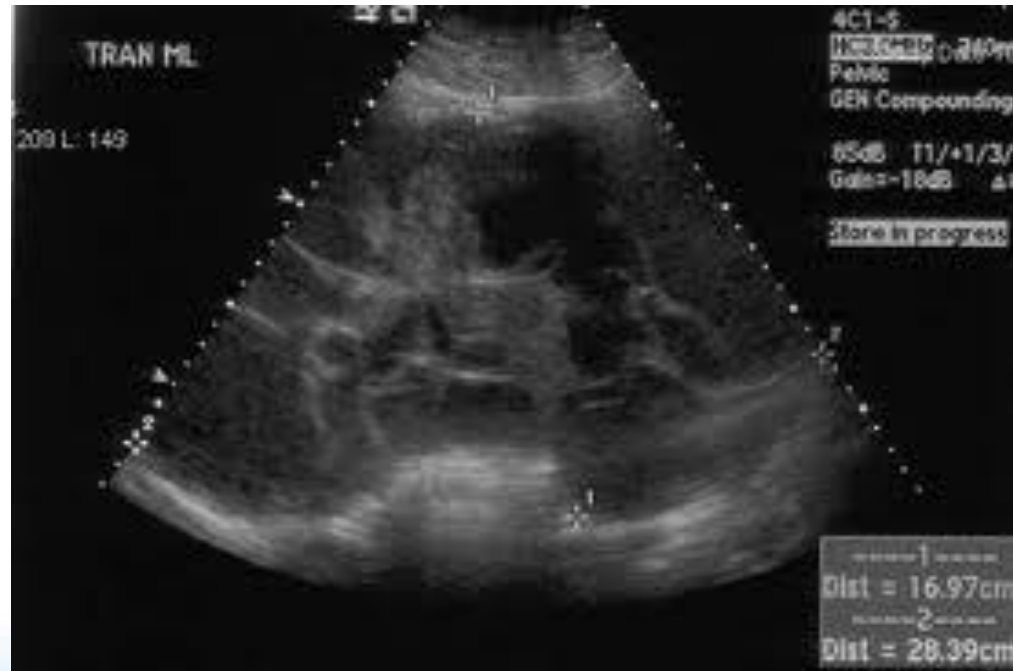


Ultrasound

- ❖ Uterine myoma, ovarian tumor, Gastrointestinal stromal tumors (GIST)



Large uterine myoma



Ovarian tumor



Ultrasound

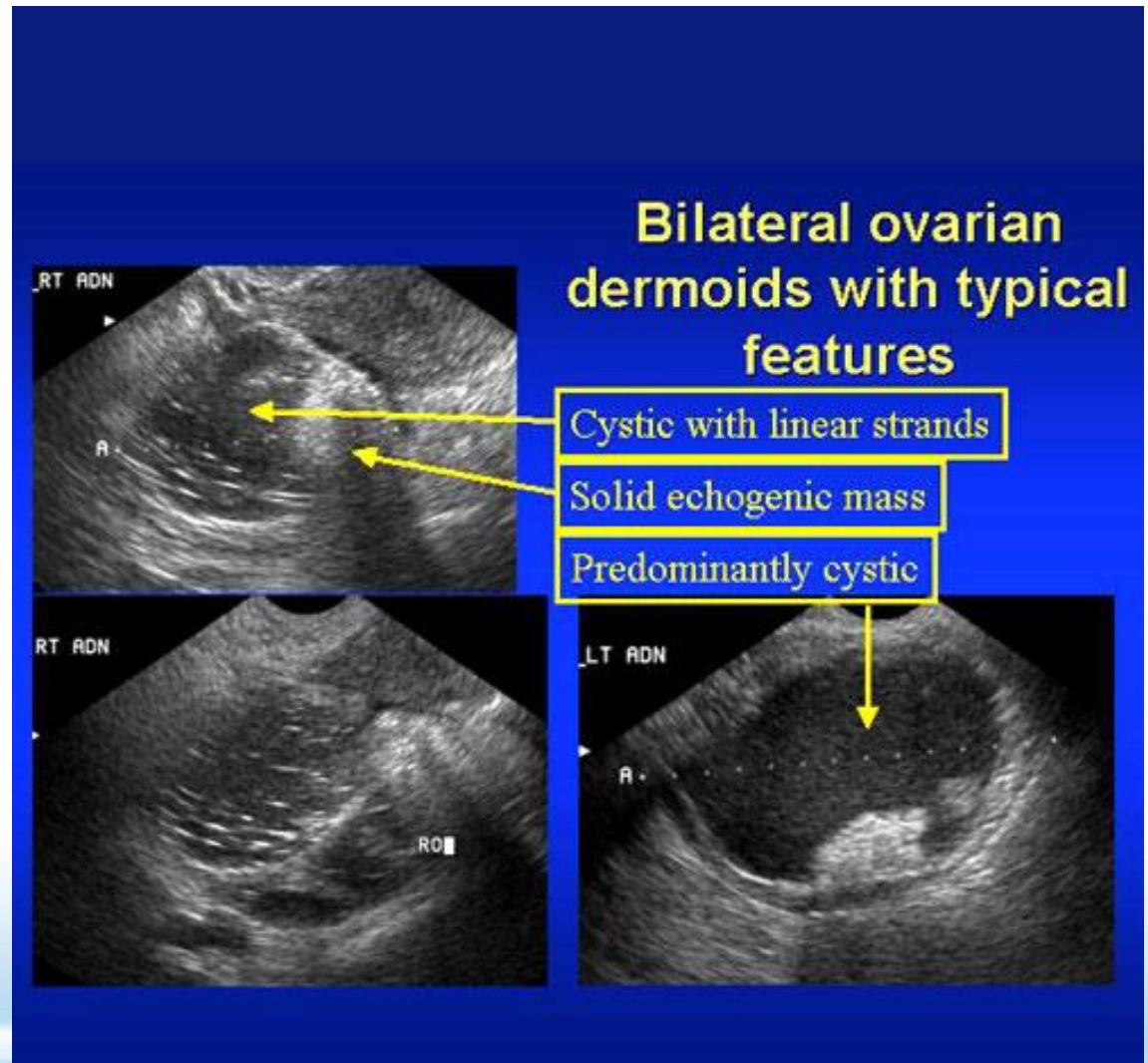
❖ Ascites





Teratomas

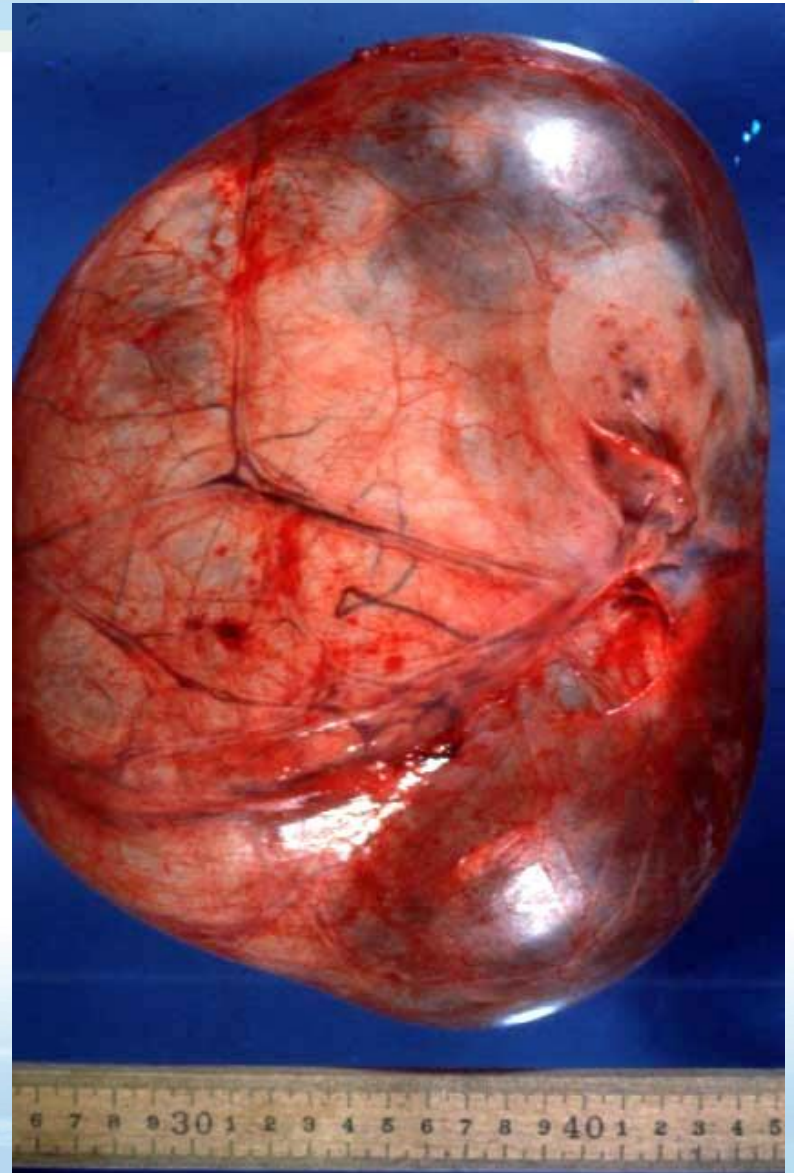
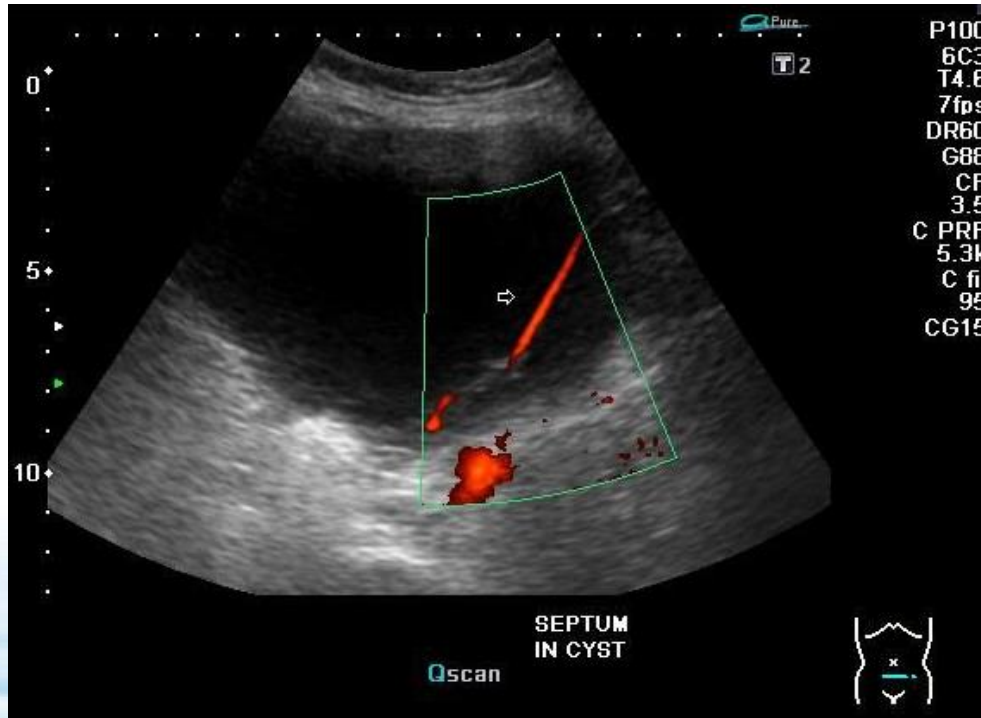
- ❖ Most teratomas were benign
- ❖ More common in young adult and children





Cystoadenoma

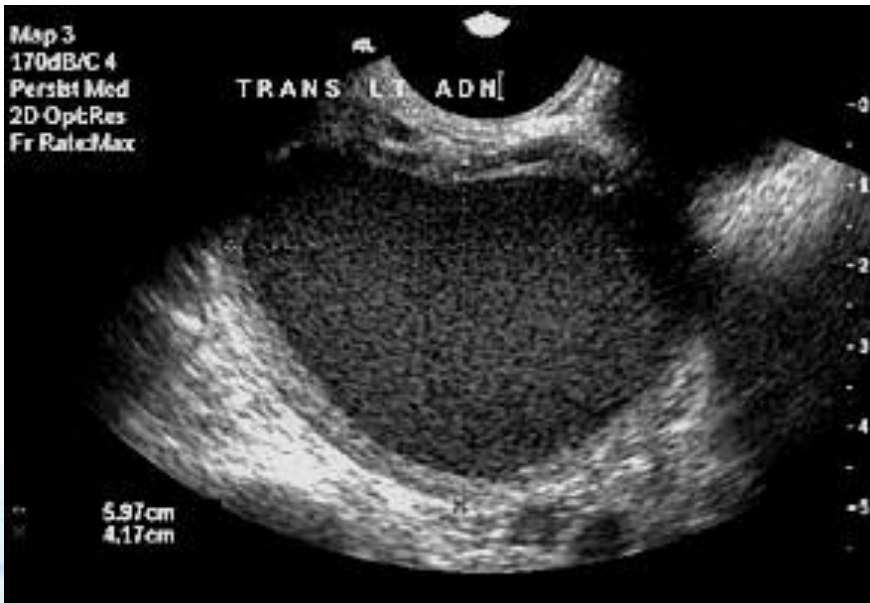
- ❖ May be large
- ❖ Serous / mucinous





Endometrioma

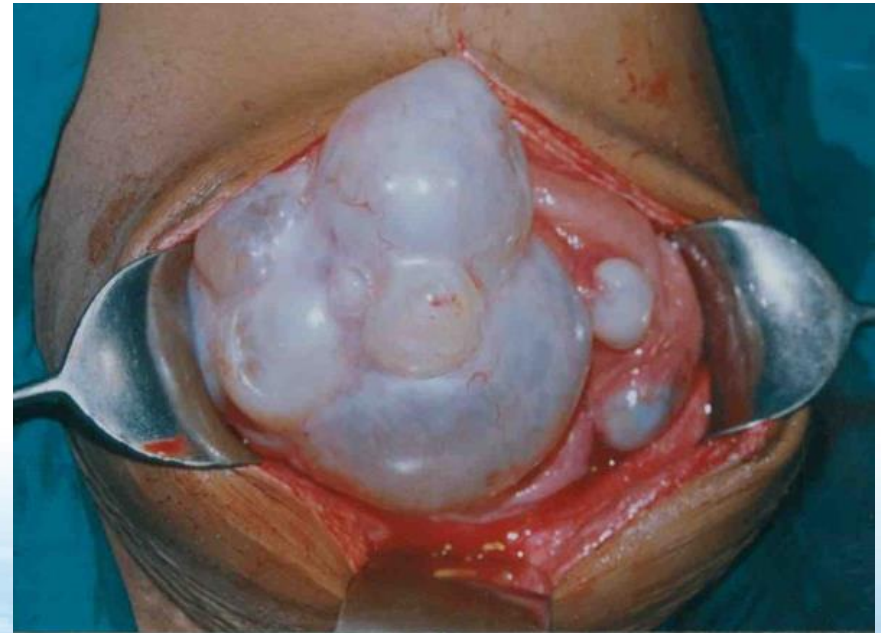
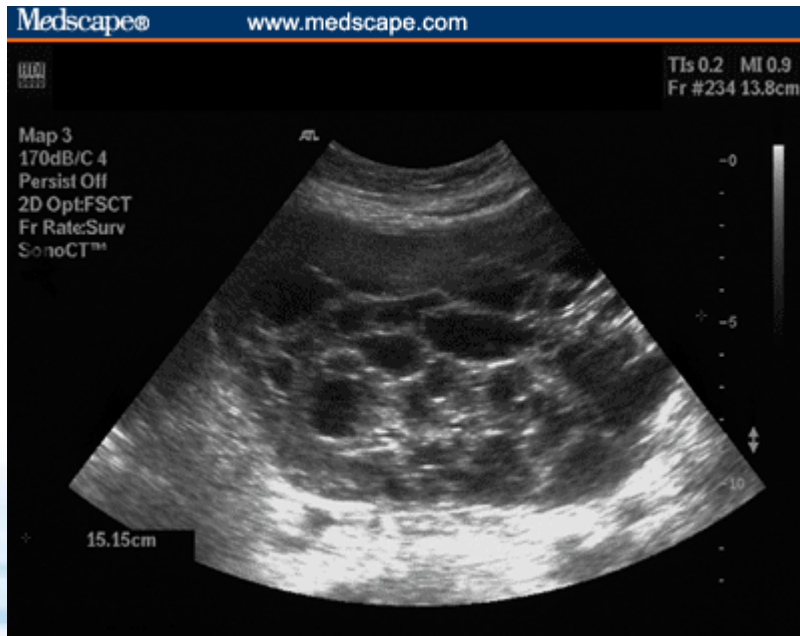
- ❖ Endometriosis within the ovary
- ❖ Chocolate-like content





Ovarian cancer – epithelial cell carcinoma

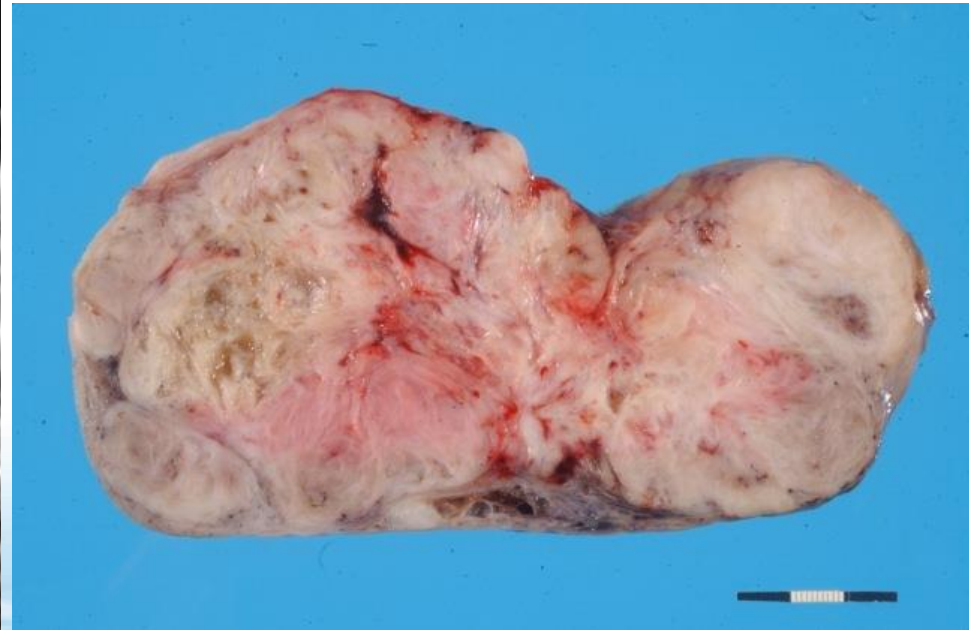
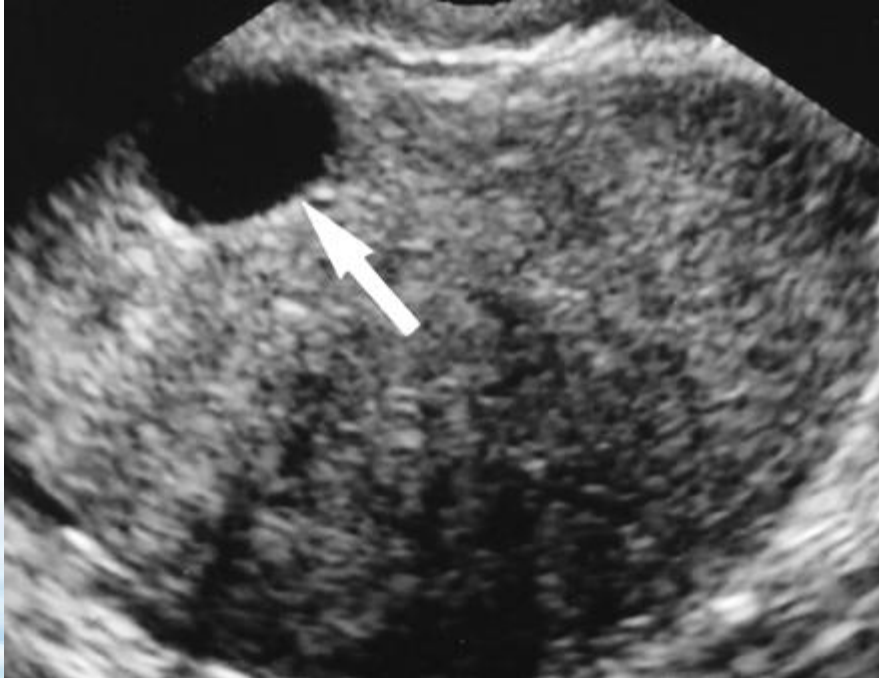
- ❖ Delayed diagnosis due to large abdominal capacity
- ❖ Most are epithelial type- serous, mucinous, clear cell, endometrioid





Ovarian cancer – stromal cell tumor

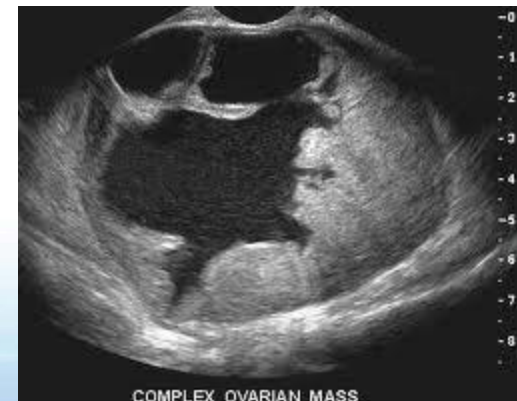
- ❖ Most sex-cord stromal tumors are solid
- ❖ Granulosa cell tumor, Theca cell tumor, Thecoma...





Preoperative evaluation of adnexal mass

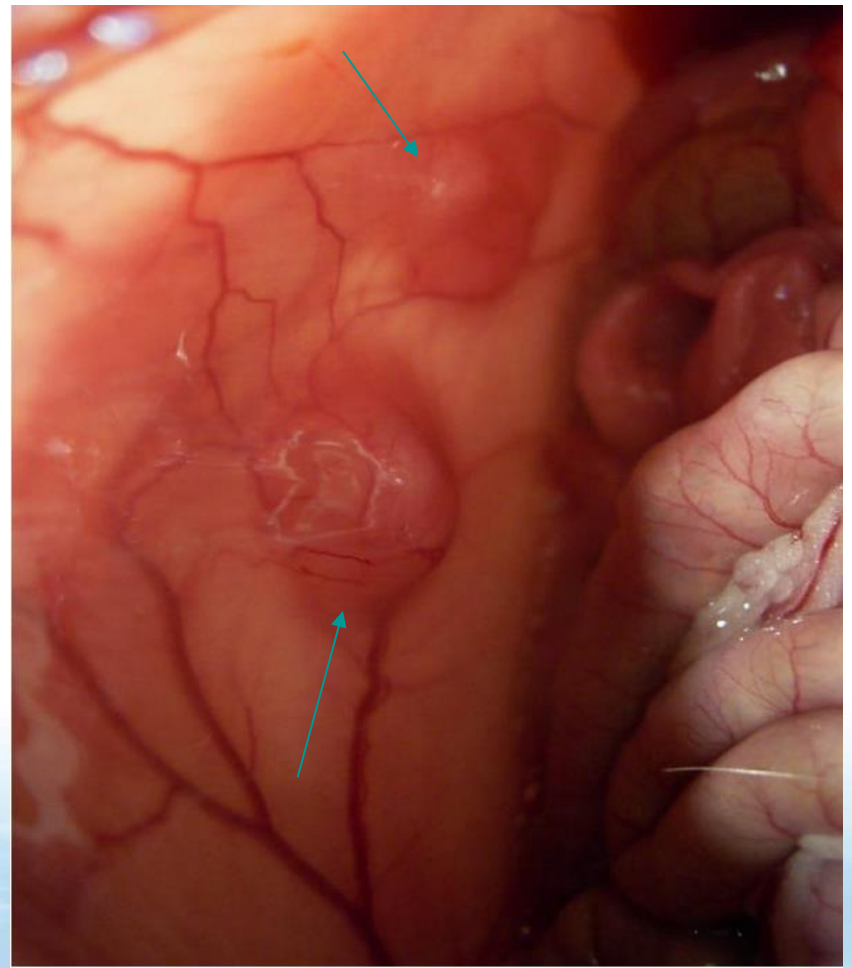
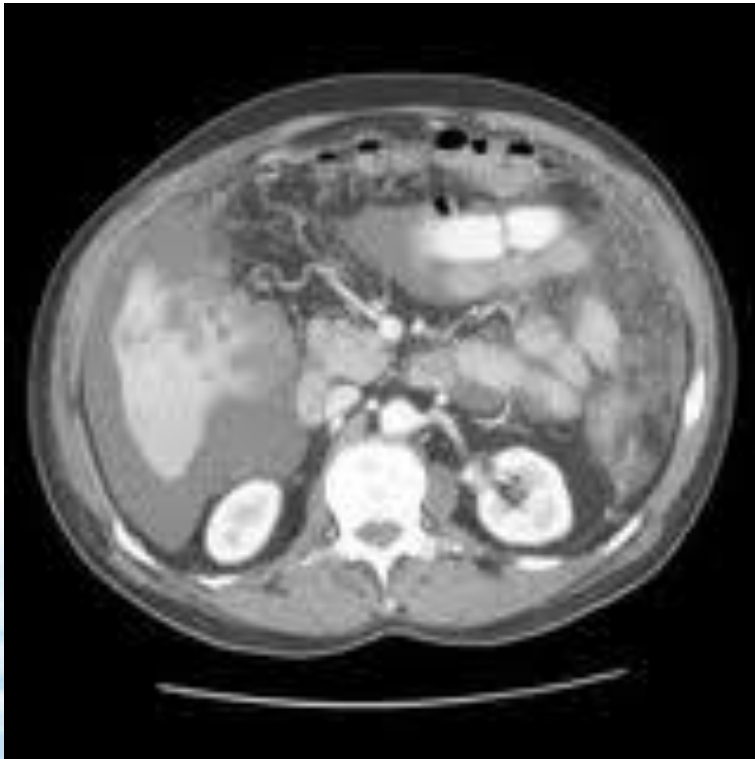
- ❖ Tumor marker? (CA125, CA199, CEA)
- ❖ Exclude nongynecologic problems
 - e.g., with barium enema
- ❖ Premenopausal
 - <8cm
 - Ultrasound
 - cystic → observation and/or suppression for 2 months
 - Solid → **surgery**
 - >8cm
 - **Surgery**
- ❖ Postmenopausal
 - **surgery**





Primary serous peritoneal carcinoma (PSPC)

- ❖ Military nodules or omentum cake over peritoneum
- ❖ Massive ascites





腹脹原因之治療

❖ 腹脹多因胃腸道、肝臟、膽道或胰腺疾病所致，此外，心血管及其他系統的疾病或某些全身性疾病也常可引起腹脹，因此，應積極尋找產生腹脹的病因。在未能完全明確診斷之前，為了減輕患者的腹脹，可採用以下對症治療措施。



- ❖ 調整飲食，盡可能地少食易產氣的食物，如高糖食物、豆類或牛奶等
- ❖ 可應用胃腸促動力劑
- ❖ 可使用緩瀉劑，以利於腸道聚集的氣體隨糞便一起排出體外
- ❖ 可採用肛管排氣法，以加速氣體的排出
- ❖ 腹脹因小腸細菌過多所致者，可選用口服抗生素治療。如證實患者胃脹不適並有幽門螺桿菌感染，可採用PPH製劑