General history

Basic Data :

Age :62y/o Date of admitted:940510

Married status : Married

General history

Chief Complain :

bilateral ovarian cyst incidentally being found out during pap smear.

Present Illness :

1. HTN for half year without regular medication control.
2. Denied other significant disease and symptoms.

General history

Surgery history : cholecystectomy

Personal history : NIL

GYN/OBS history :

OBS : G7P5 SA1AA1

menopause : 52y/0

General history

Review of system :

no significant positive finding

Physical examination :

B.W.:83.1KG Height : 155.8cm

vital sign : T/P/R :36.8c/91bpm/20

B.P. : 127/89 mmhg

Lab data

WBC :7.75 10x3 mg/dl

Glucose : 170 mg/dl

CA125 :55.05 U/ml

CA199 : 157.70 u/ml

Image study

- CXR ；no active lung lesion
- Abdominal sono :

1. Uterus

   RVF 49x34x37mm

   endometrium : 5mm

   mass : post. Wall , thickness

2. adnexa

   R't ovary :with cyst 29x41mm

   L't ovary :with mass 39x42mm

   cul-de-sac : no fluid

Image study

- Left heterogenous, solid mass with cystic or necrotic component within the lesion
- Right homogeneous solid mass.
- Impression :

  pelvic masses

R/o ovarian tumors

Image study

- Left solid mass abutting to left lateral wall of sigmoid colon
- R/o colon malignant changed

Image study

- Left solid mass abutting to left lateral wall of sigmoid colon
- R/o krukenberg's tumor

Image study

- Ill-defined hetetogenous mass with uterus at pelvic cacity.
- R/o myoma
- No lymph adenopathy involvement

Differential diagnosis

- Ovarian tumor
- Colon cancer
- Metastases – Krukenberg's tumor

Ovarion tumor

- Normal ovary size : 3.5x2.5x1.0cm
- masses pose the greatest concern:

  .Those larger than 7 cm in diameter

  .Those that persist beyond the length of a normal menstrual cycle

  .Those that have solid components

  .Those that have a complex internal structure

  .Those that are associated with pain
- Clinical symptoms :urinary frequency, pelvic or abdominal pressure, and bowel habit changes, acute pain with twisted masses.
- Imaging studies : most common- ultrasound, either transabdominal or transvaginal , CT scan can help identify the size, location, and relationship to other organs ,evaluated vascular supply and enlarged lymphnodes

Colon cancer

- History : found by screening or maybe asymtomatic
- 50% of patients present with abdominal pain, 35% with altered bowel habits, 30% with occult bleeding, and 15% with intestinal obstruction
- Clinical symptoms: weight loss, cachexia, abdominal discomfort or tenderness, liver mass, abdominal distention, ascites, rectal mass, rectal bleeding, or occult blood on rectal examination.
- Imaging studies :Abdominal/pelvic CT scans can be useful in diagnosis of colon cancer that has metastasized to lymph nodes and liver
- Colonscopy: examed entire colon, obtained biopsy, removed polyps
- Double contrast barium enemas : screening and diagnosis

Krukenberg's tumor

- Mucocellular carcinoma of the ovary
- usually metastatic from the gastrointestinal tract
- character :mucoid degeneration , signet-ring-like cells ,
- The lesions may not be discovered until the primary disease is advanced. In some cases, a primary tumor is not found
- Clinical feature :large, bilateral and poor prognosis. Rarely unilateral
- Ultalsound :bil.solid ovarion masses, hypervascular, clear margin, intratumoral cysts
- CT scan: bil.solid masses, demarcated intratumoral cysts, enhanced rim of cysts

Pathology result

- 1. L't ovary :mucinous cystadenoma with borderline malignancy

  2. R't ovary :mucinous cystadenoma, minimal histologic change

  3. uterus : leiomyoma , adenomyosis , adhension

  4. omentum : fat necrosis

  5. Stomach: gastritis

  6. colon : chronic inflammation, no evident of cancer cell.

- Diagnosis :mucinous cystadenoma, borderline

Discussion

- Mucinous cystadenoma
  - 15-20% of ovarian tumours
  - can attain a huge size
  - multilocular
  - contain viscid mucin
  - may rupture and cause pseudomyxoma peritonei

Borderline mucinous cystadenoma

- about 10% of mucinous ovarian tumours
- bilateral in 10% of cases

Clinical features of ovarian tumor

- often asymptomatic, non-specific symptoms
- pain: rapidly enlarging malignant lesion
- abdominal girth: tumour or ascites
- pressure effects: distorting the urethra, urinary retention, urinary frequency
- Rupture
- endocrine effects: rarely
- Others: infarction/haemorrhage, torsion of a cyst

Investigation of ovarian tumor

- routine haematologic and biochemical studies
- abdominal radiograph - calcifications in a younger patient may be due to a benign cystic teratoma
- barium enema - to rule out ovarian metastases from a primary colonic cancer in older patients
- breast mammography - in patients with suspicious breast lumps to eliminate breast metastases
- pelvic ultrasonography, especially transvaginally - more effective than CT
- serum tumour markers - CA-125(normal:<30ku/L) is elevated in 80% of patients with advanced ovarian cancer.
- endometrial biopsy - if abnormal vaginal bleeding - to exclude concurrent primary endometrial and ovarian tumours

Imaging finding

- Indicators for a benign lesion
  - smooth walled, cystic
  - freely mobile
  - frequently unilateral
  - may adhere to an adjacent structure because of infection
- Indicators for a malignant lesion
  - irregular, nodular, partially solid mass,
  - usually bilateral
  - fixed
  - ascites

Treatment for borderline mucinous cystadenoma (1)

- A high index of suspicion for possible malignancy is necessary. Indications for exploratory laparotomy, the collection of any ascitic fluid and washings from the pelvis, both paracolic gutters and both hemidiaphragms.
- If the frozen section revealed invasive or borderline malignancy (low malignant potential,LMP). Proceed with complete staging for ovarian cancer.
- Consider more conservative therapy for young patients if future fertility is required
- In postmenopausal women, total abdominal hysterectomy and bilateral salpingo-oophorectomy are appropriate.

Treatment of borderline mucinous cystadenoma (2)

- Surgery

Vertical incision
Multiple cytologic washings
Intact tumor removal
Complete abdominal exploration
Removal of remaining ovaries, uterus, tubes[a]
Omentectomy
Lymph-node sampling
Random peritoneal biopsies, including diaphragm

[a]May be preserved in selected patients.

Prognosis factor

- **Early stage**
- **Younger age**
- **Serous histology demonstrating psammoma bodies and diploid tumors**
- **Survival rate:**

5 years	**97%**
10 years	**95%**
15 years	**92%**
20 years	**89%**

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