Identification

- Gender：女
- Age：54 y/o
- Date of admission: 94/07/03

Chief complaint

A pelvic mass
revealed by
Health Examination
in November, 2004

Present illness-1

- G4P2AA2, LMP 94/03/31
- 93/11, Health Examination → many solid masses & cysts in the pelvic cavity
- Denied any symptoms & discomforts
- OPD follow-up, arrange MRI & IVP

Present illness-2

- 93/12/14: MRI
  - malignant tumor of pelvic cavity
  - right ovarian tumor with left side invasion to left ovary or adjacent bowel structure
- 94/06/07: sonography
  - right solid mass 11.9 X 7.3 cm
  - left (fundal) mass
  - cau-de-sac fluid accumulation

Past history

Nil

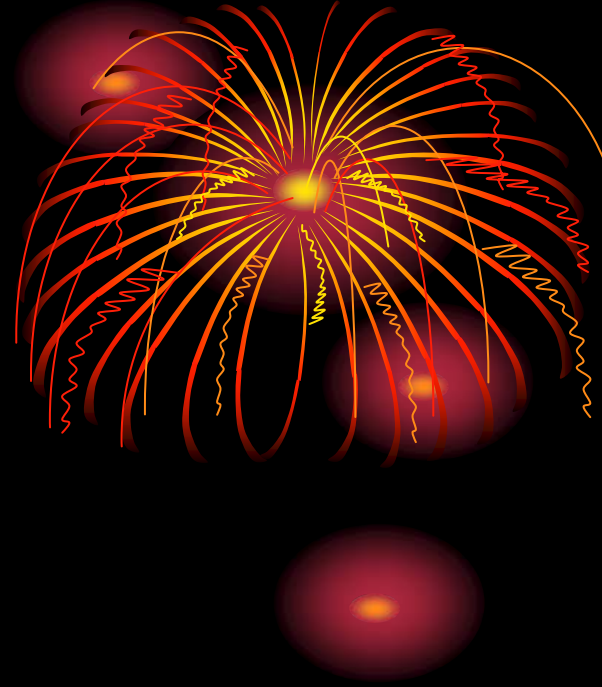
Physical examination

- Abdomen: a palpable mass at left lower quadrant

Laboratory data

- CBC/DC
  - MCV 99.5
  - MCH 34.3
- U/A
  - sugar 1+
  - OB 2+
- Biochemistry
  - glucose 157

Image



- CXR
- KUB
- Sonography of abdomen
- Pelvic CT

Sonography- 1

Leiomyoma

- Ultrasound accurately distinguishes a leiomyoma from extra-uterine disease.
- Myomatous uterine is typically enlarged & its outline may be irregular or lobular.
- The most common appearance of a leiomyoma is that of a well-marginated, hypoechoic, rounded &/or oval mass within the uterine body.

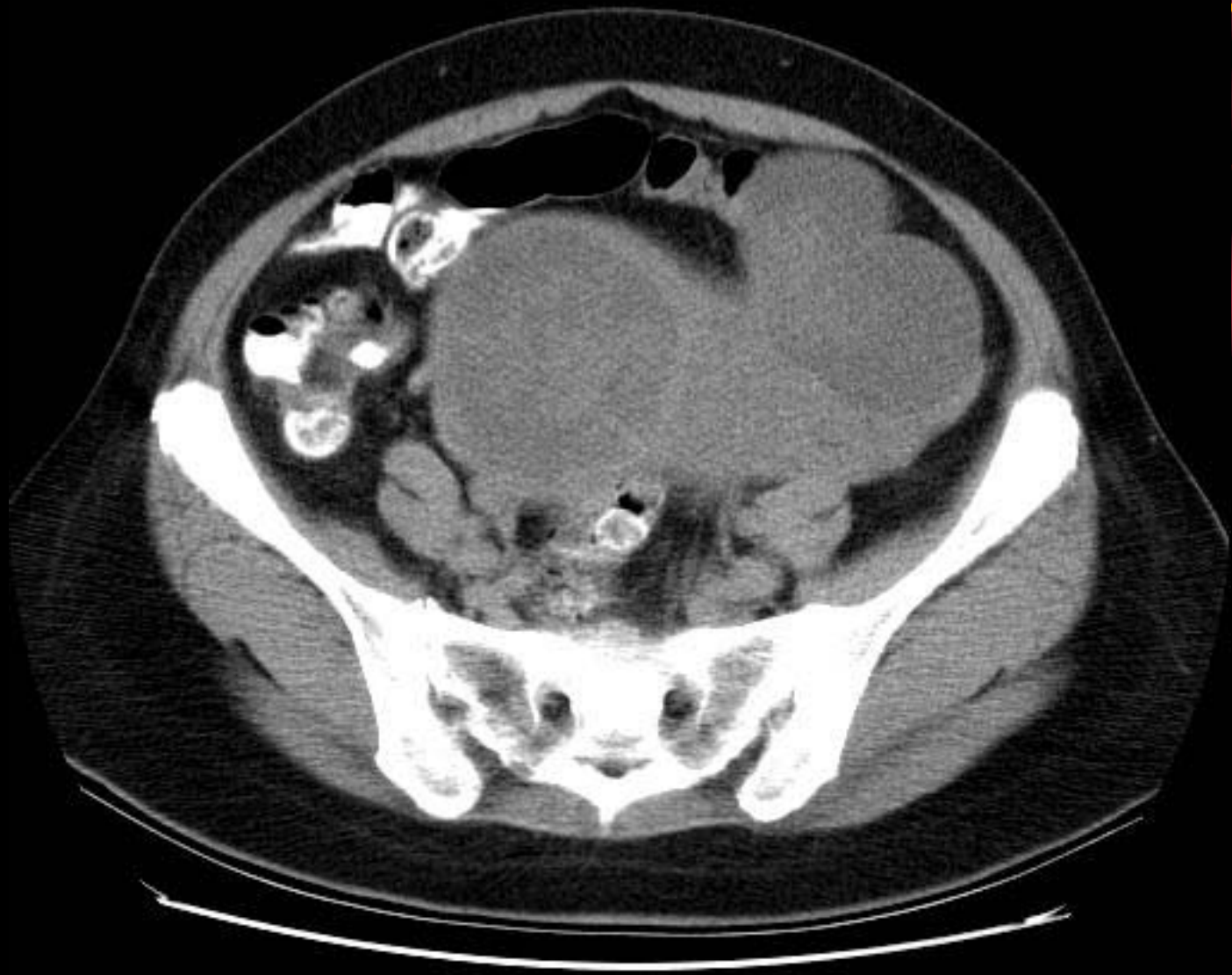
Malignant ovarian conditions

- Features of US, which suggest benignancy & malignancy, have been well described.
- Malignant tumors often have neovascularity that consists of blood vessels with walls that have *little or no smooth muscle support*.
- These vessels frequently have a characteristic waveform with a low resistive index (RI).

Sonography- 3

- A mixed echogenicity mass with cystic change at LLQ
- Size 85 mm within uterus
- Differential diagnosis
  - uterus lieomyoma
  - uterus lieomyosarcoma
  - cystadenoma of ovary
  - cystadenocarcinoma of ovary
- R/O cystadenoma & cystadenocarcinoma of ovary
- R/I uterus lieomyoma & leiomyosarcoma

Pelvic CT- 1



Pelvic CT- 2

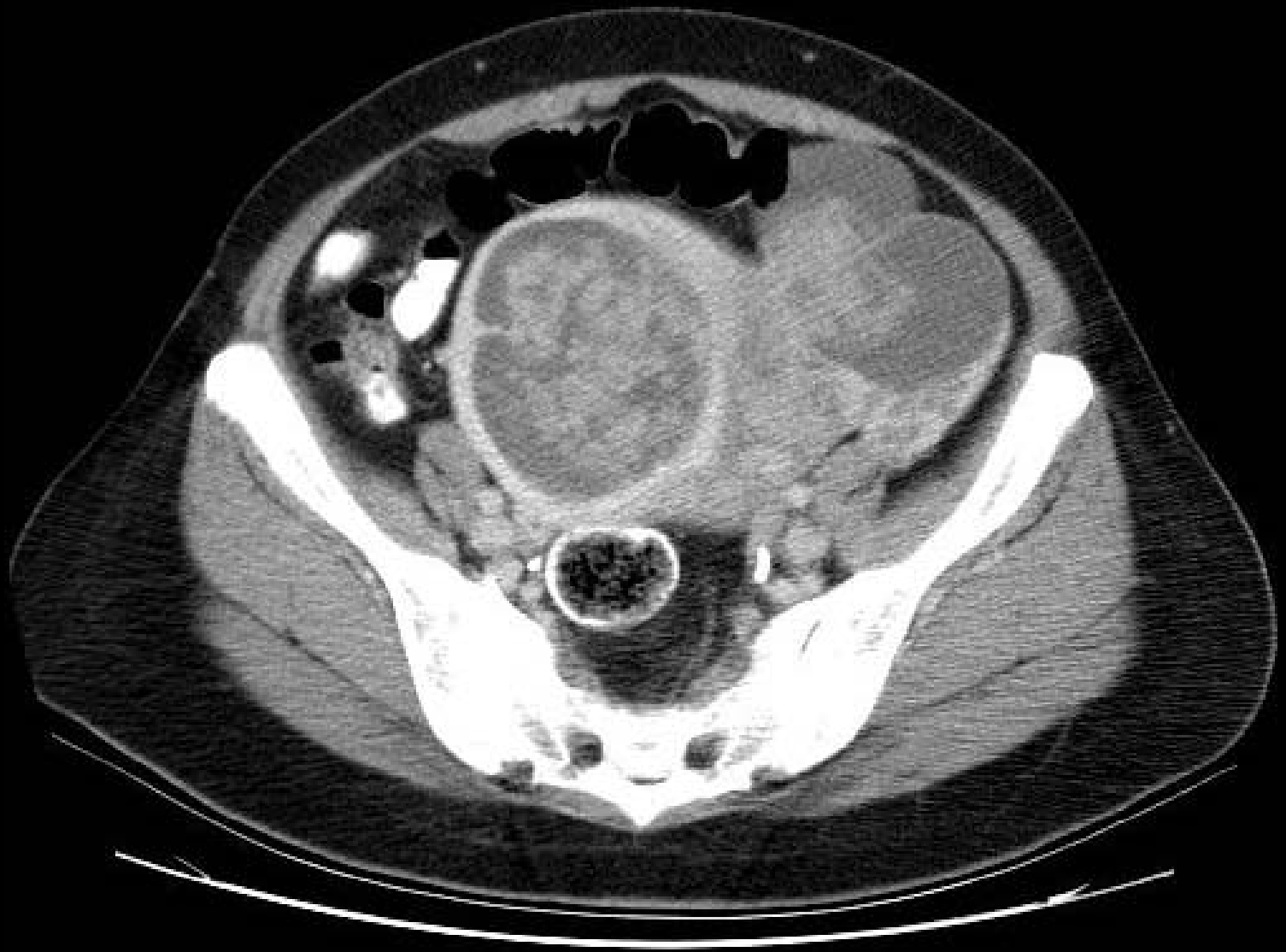
Pelvic CT- 3

Pelvic CT- 4

Pelvic CT- 5

Pelvic CT- 6

Pelvic CT- 7



Pelvic CT- 8

Pelvic CT- 9

Pelvic CT- 10

Pelvic CT- 11

Pelvic CT- 12

Pelvic CT- 13

Leiomyoma

- A soft-tissue density similar to that of normal myometrium
- Necrosis & degeneration may result in *low attenuation*.
- Contour deformity is the commonest sign of a leiomyoma uterus.
- Calcification is the most specific finding for a leiomyoma on CT.

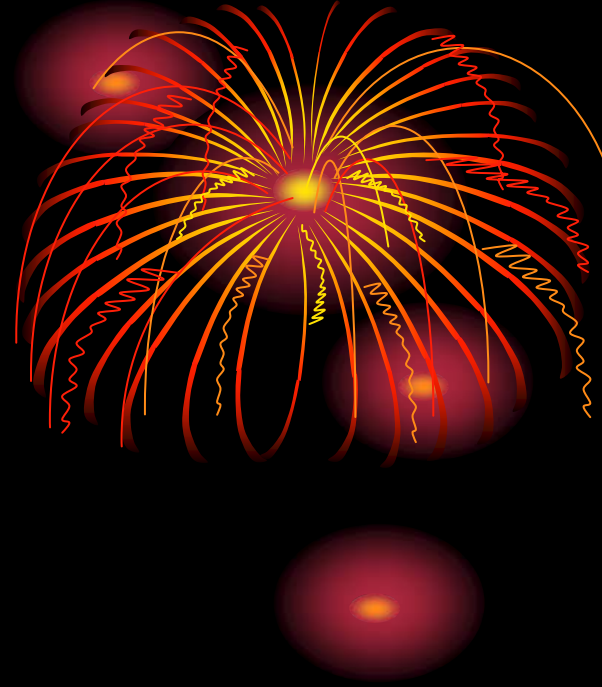
Malignant ovarian conditions

- Demonstrate varied morphologic patterns including a multilocular cyst or solid mass with thick internal septations ..etc
- The outer border may be irregular, poorly defined, amorphous, coarse calcifications & contrast enhancement.

Pelvic CT- 14

- A heterogenous mass within the uterus
- After enhancement → mixed component
- A cyst compressing the uterus by the left side
- Differential diagnosis
  - uterus lieomyoma
  - uterus lieomyosarcoma
  - ovarian carcinoma
  - ovarian cyst
- R/O ovarian cyst
- R/I uterus lieomyoma, lieomyosarcoma & ovarian carcinoma

Impression



- Uterus lieomyoma
- Uterus lieomyosarcoma

Treatment

- Surgery
  - ATH + BSO
  - pelvic LN sampling
- Pathology
  - bland-looking proliferative smooth muscle cell with protrusion
  - focal hyaline, cystic & myxoid change
  - no tumor necrosis
  - no increased mitotic figure
  - no LN involvement

Final diagnosis

- Uterus lieomyoma

Discussion
Uterus leiomyosarcoma

- Clinical presentation
- Typical image
- Stage
- Treatment
- Prognosis

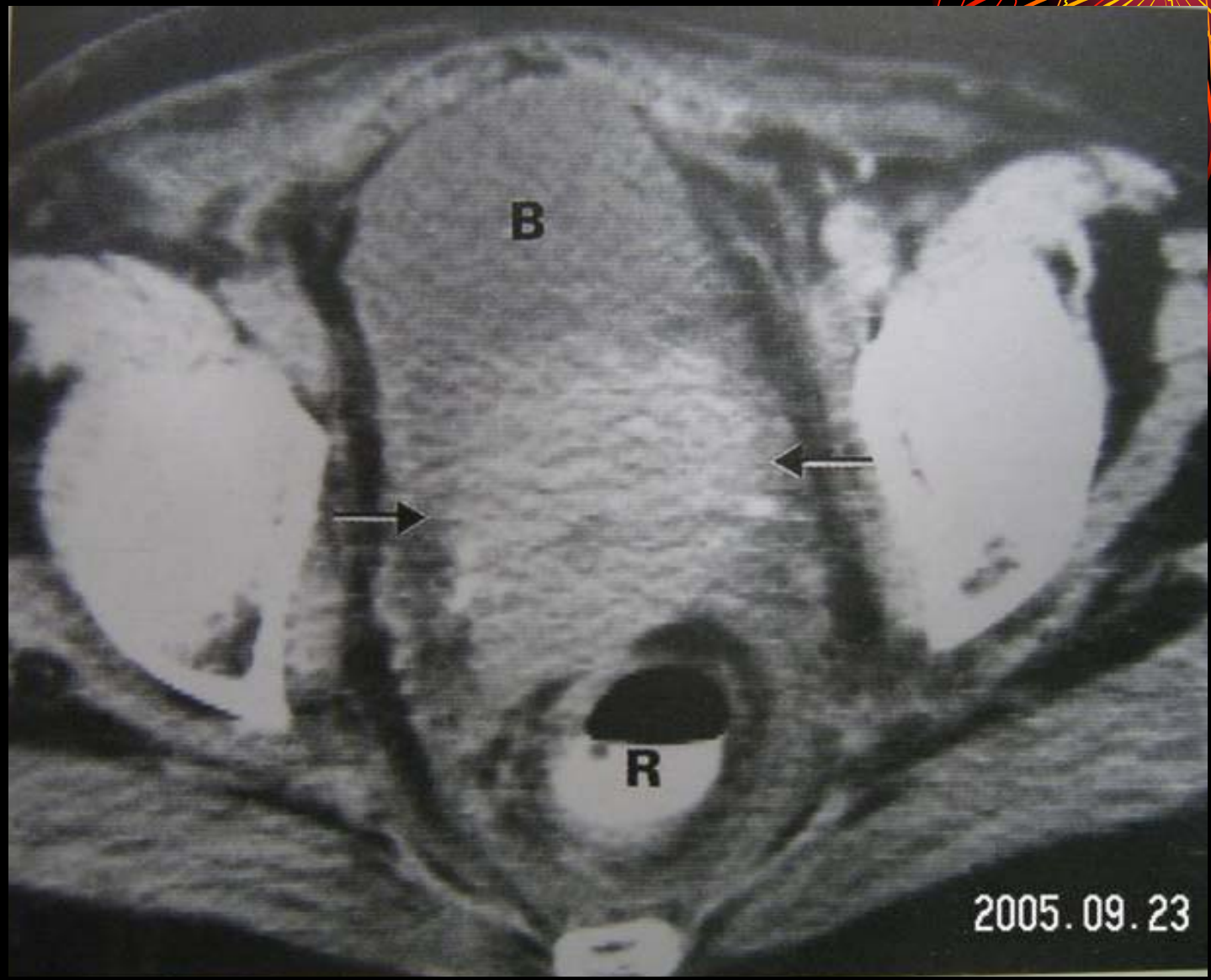
Clinical presentation

- Asymptomatic
- Post-menopausal bleeding
- Abdominal mass
- Pelvic pain
- Evidence of metastasis

Typical image- sonography

- Discrete masses
- Hypoechoic & heterogenous
- Whorled appearance
- Calcified (hyperechoic) or cystic changes

Typical image- CT



Stage- 1

- Stage I- limited within corpus uteri
  - Ia: limited to endometrium
  - Ib: invasion to < ½ myometrium
  - Ic: invasion > ½ myometrium
- Stage II- to cervix
  - IIa: endocervical glandular involvement
  - IIb: cervical stromal invasion

Stage- 2

- Stage III- to true pelvis
  - IIIa: serosa &/or adnexa involvement &/or positive peritoneal cytology
  - IIIb: vaginal metastasis
  - IIIc: pelvic &/or para-aortic LNs involvement
- Stage IV- outside of true pelvis
  - IVa: bladder &/or bowel mucosa involvement
  - IVb: distant metastasis

Treatment

- Stage I & II
  - TAH + BSO
  - R/T or surgery for pelvic lymphatics
  - adjuvant C/T
- Stage III- aggressive combination of surgery, R/T & C/T
- Stage IV- combination C/T

Prognosis- 1

- 5-year survival: 20-63% (47%)
- **Most reliable indicator of malignant behavior**: mitotic count
  - 1~4 mitoses / 10 HPF: 98%
  - 5~9 mitoses / 10 HPF: 42%
  - >10 mitoses / 10 HPF: 15%

Prognosis- 2

- Most important prognostic indicator: gross presentation of tumor at the time of surgery
- Other histologic indicators of poor prognosis
  - marked anaplasia
  - necrosis
  - blood vessel invasion

Thanks for Your Attention!