- The patient:
- GE: 34 y/o
- Gender: Female

- **Chief complaint**:
- Right leg numbness progress in recent 1 month

Present Illness

- The 34 year-old woman suffered from right leg numbness for about a month . Acording to her statement, she also felt numbness of right foot and buttock. And the situation progressing during this month.So she came to our neurology OPD for help because of progressing right leg numbness. And PE revealed parasthegia especially on pain and thermal sensation.

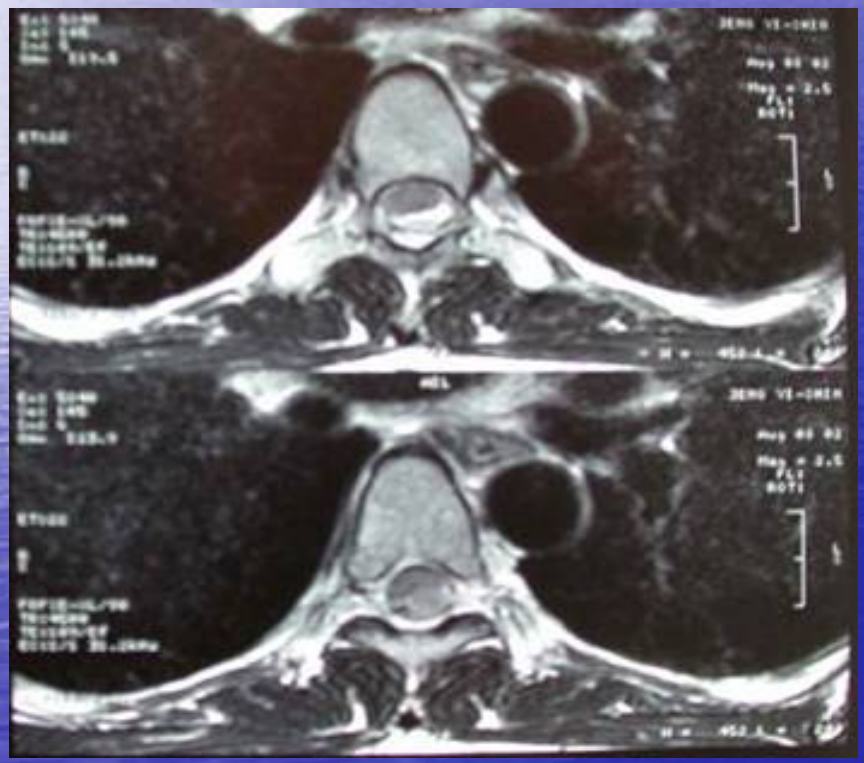
PE & Lab data

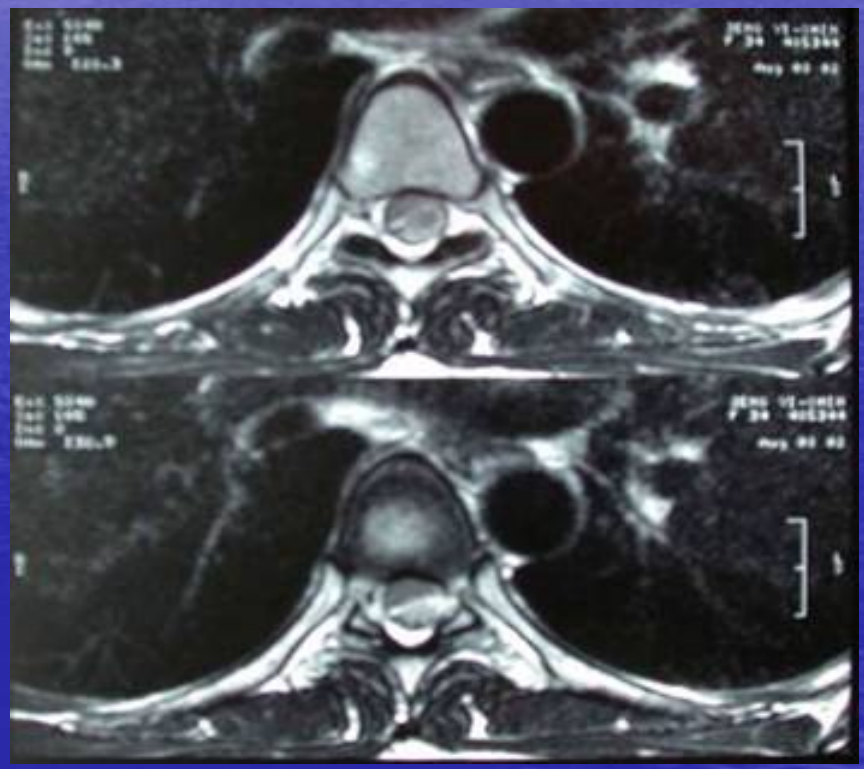
- Neurological examination :
  - ---impaired pain and thermal sensation
  - ---Poor sensation to pin prick and two point discrimination
  - ---Muscle power: intact
  - ---Tendon reflex: normal
- Lab Data: no particular finding except mild anemia (Hb:10.3)

MRI:T2WI


RSP
JENG YI-SHIN
Aug 08 02
Mag = 2.0
FL:
ROT:
T6
RSP
Aug 08
Mag =
FL:
ROT:
T6

MRI:T2WI

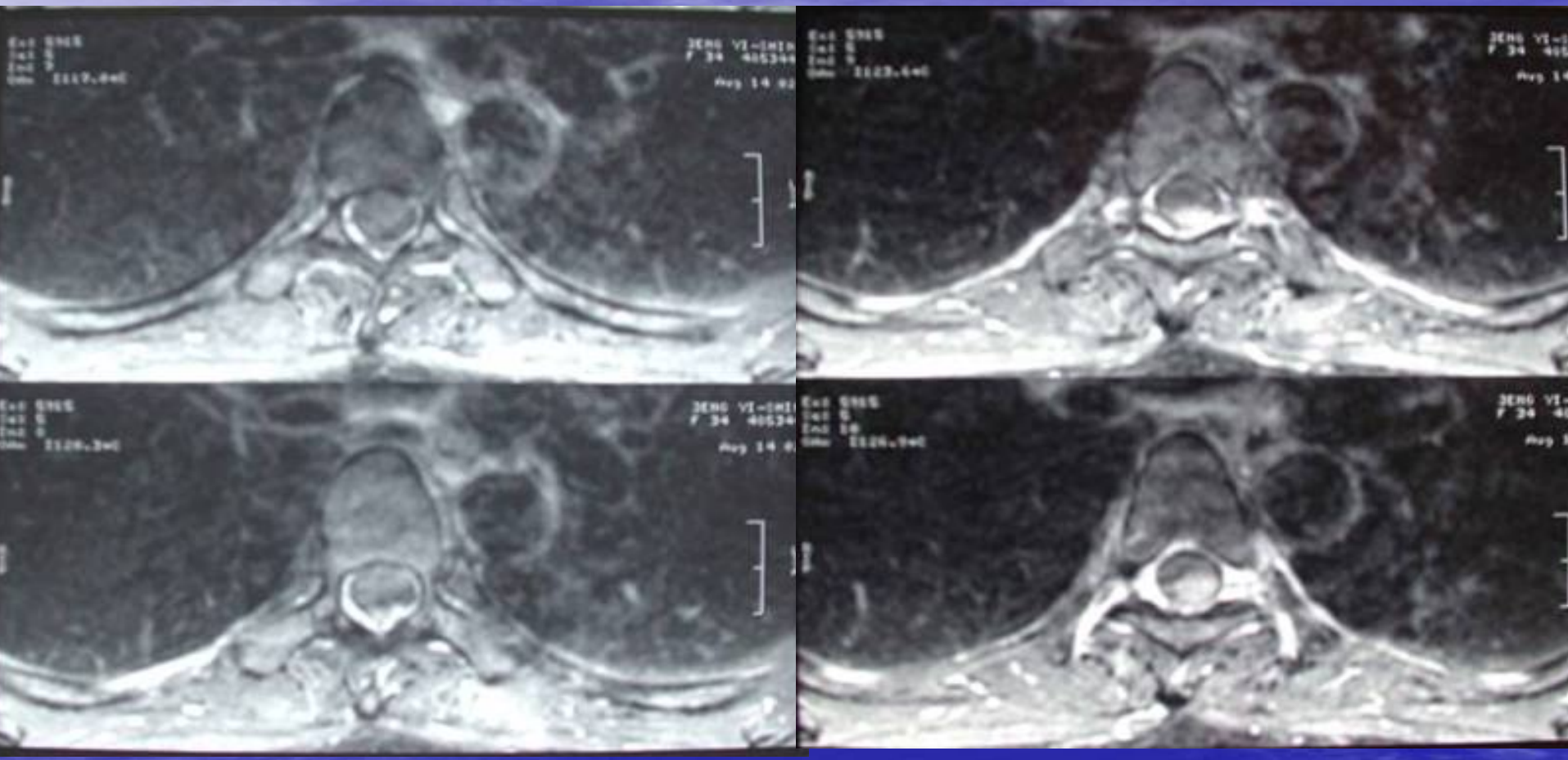




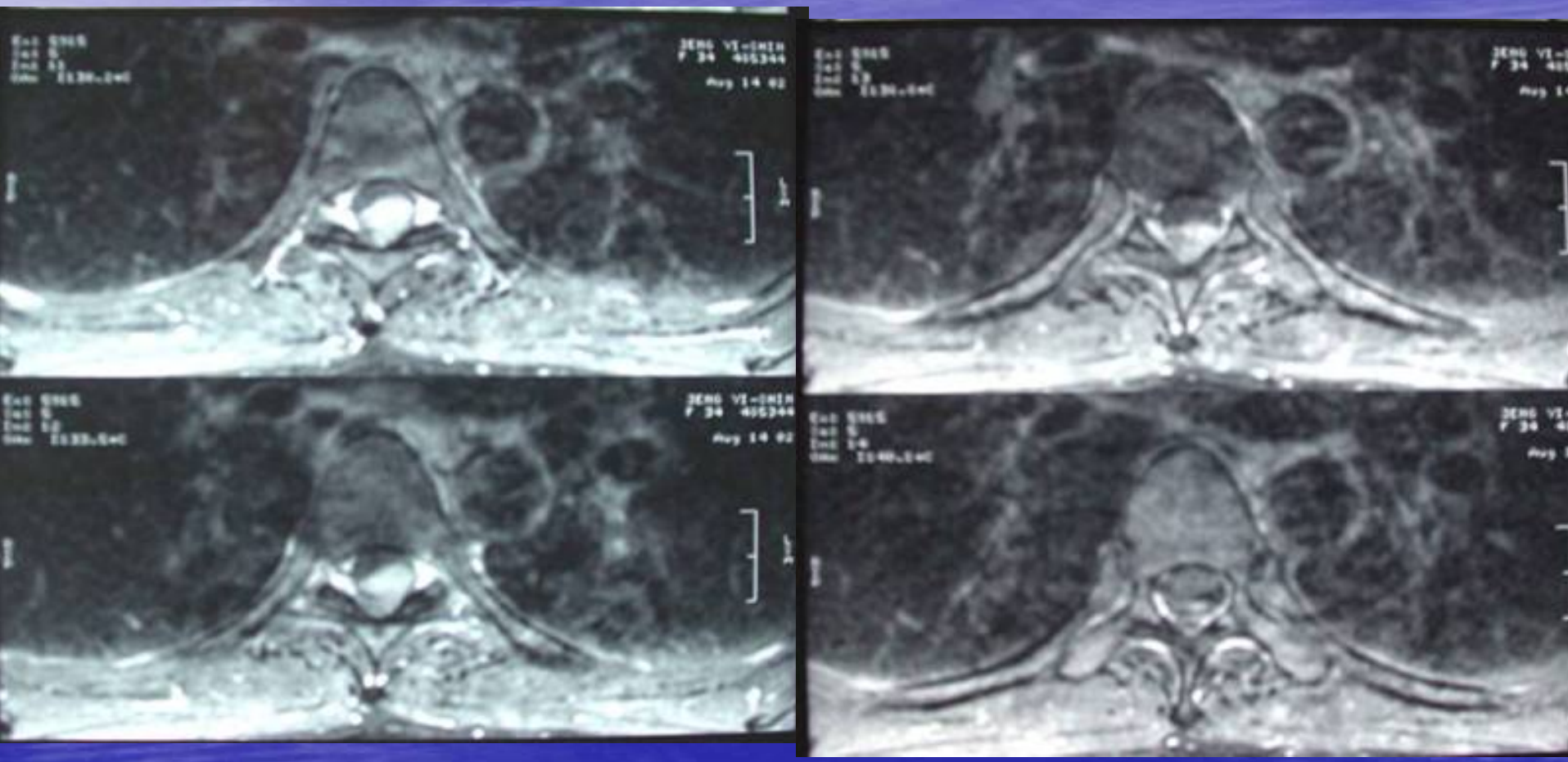

fse-x1/90
TR:450
TE:10.7/Ef
EC:1/1 20.8kHz
3.0thk/0.3sp
LIPW =
fse-x1/90
TR:450
TE:10.7/Ef
EC:1/1 20.8kHz
3.0thk/0.3sp
LIPW =

T1WI

Post-Contrast T1WI



Post Contrast T1WI



Characteristics—in this patient

- Lesion in thoracic spine(T6), in women, solitary, in posterior-lateral aspect
- MRI—T2WI ----hypo intense--- negative defect within bright CSF on T2-weighted
- isointense to slightly hyperintense on T1-weighted
- Lesion gets broad-based attachment to the dura
- enhance with intravenous gadolinium

Pathology

- Grossly is brownish and elastic nodule accompanied by some meningeal tissue fragments and some vertebral bone chips
- Microscopically the brownish nodule shows a picture of meningioma with meningothelial pattern. Psammoma bodies are included.
- Invasion of vertebral body bones by meningioma is also found but it is not a sign of malignancy

Impression

- Intradural extramedullary Meningioma

Intradural Extramedullary Tumors

- nerve sheath tumors (schwannomas and neurofibromas)
- meningiomas
- metastases

Nerve Sheath Tumors

- two basic types of nerve sheath tumors: schwannomas and neurofibromas
- Even with MRI, distinction between the two types is usually difficult
- Schwannomas tend to be solitary and arise eccentrically from the nerve sheath
- Neurofibromas are more often fusiform and multiple

- On both CT and MRI scans, nerve sheath tumors demonstrate prominent enhancement with intravenous contrast agents

Meningioma

- second only to neurofibromas in frequency and are the most common tumor encountered in the thoracic spine
- Approximately 80% occur in women, the average age at presentation being 40 to 50 years
- They typically arise in the posterolateral aspect of the spinal canal.

- **Meningiomas** are almost always solitary

- Radiographic abnormalities, which include bony erosion and widening of the interpediculate distance, are uncommon, occurring in fewer than 10% of cases.

- **Meningiomas** are easily detected by MRI, which is the preferred method of diagnosis. Relative to the cord, the tumor is isointense to slightly hyperintense on T1-weighted images and slightly hyperintense on T2-weighted images.

- A broad-based attachment to the dura, common in **meningiomas**, may be helpful in differentiating them from nerve sheath tumors, at least for smaller lesions
- **Meningiomas** tend to be less hyperintense on T2-weighted images than nerve sheath tumors, appearing as a negative defect within bright CSF on T2-weighted axial images
- Almost all **meningiomas** enhance with intravenous gadolinium

Intradural Metastasis

- Intradural metastases are relatively uncommon and may result from hematogenous spread of systemic malignancies or so-called "drop metastases," seeding of the subarachnoid space by primary intracranial neoplasms

- Drop metastases are more common in children, especially those with medulloblastoma

- Postgadolinium MRI is mandatory when intradural drop metastases are suspected. With appropriately thin slices, MRI can reliably identify lesions as small as 2 to 3 mm in diameter

- Systemic tumors more likely to metastasize to the intradural space include breast carcinoma, melanoma, leukemia, and lymphoma