病例報告及討論

- Sex: 女　　Age : 48.08

Chief Complain

- Suffered from headache and right side hearing impaired for 1 years

Present Illness

- This 48 years old female suffered from headache and right side hearing impaired for 1year.But she didn`t pay much attention on it . In these months, right eye blurred vision was also noted .So , she visited 花蓮慈濟 hospital and brain MRI was done.It revealed a brain tumor ,R/O acoustic neuroma and compressive to optic nerve. Operation had suggested .But her family wanted more evaluation .So they came to our NS OPD.
- At our OPD, balance disturbance was noted .No dizziness,nausea was found.Headache,right side hearing impaired and right side blurred vision were noted.Under the impression of R/O acoustic neuroma ,she was admitted to our ward for further study.

History

- Family history : not contributory
- Personal history :
  - smoking (-)
  - alcohol (-)
- Past history :
  - Asthma for 5-6 with regular control
  - L – spine HIVD S/P OP 7 years ago .

Physical examination

- No positive finding

- Neurological examination

  hearing power : impaired on right

  Romberg test : balance disturbance

  Gait :balance disturbance

Labotory Data

- 91/02/02 11:51

WBC: 12.52

HGB: 13.3

PLT :353

NEUT :56.2

Glucose :79

BUN: 12

Creatinine :0.7

GOT/GPT : 15 /17

Na + :142.0

K+ 3.80

T1 weighted image

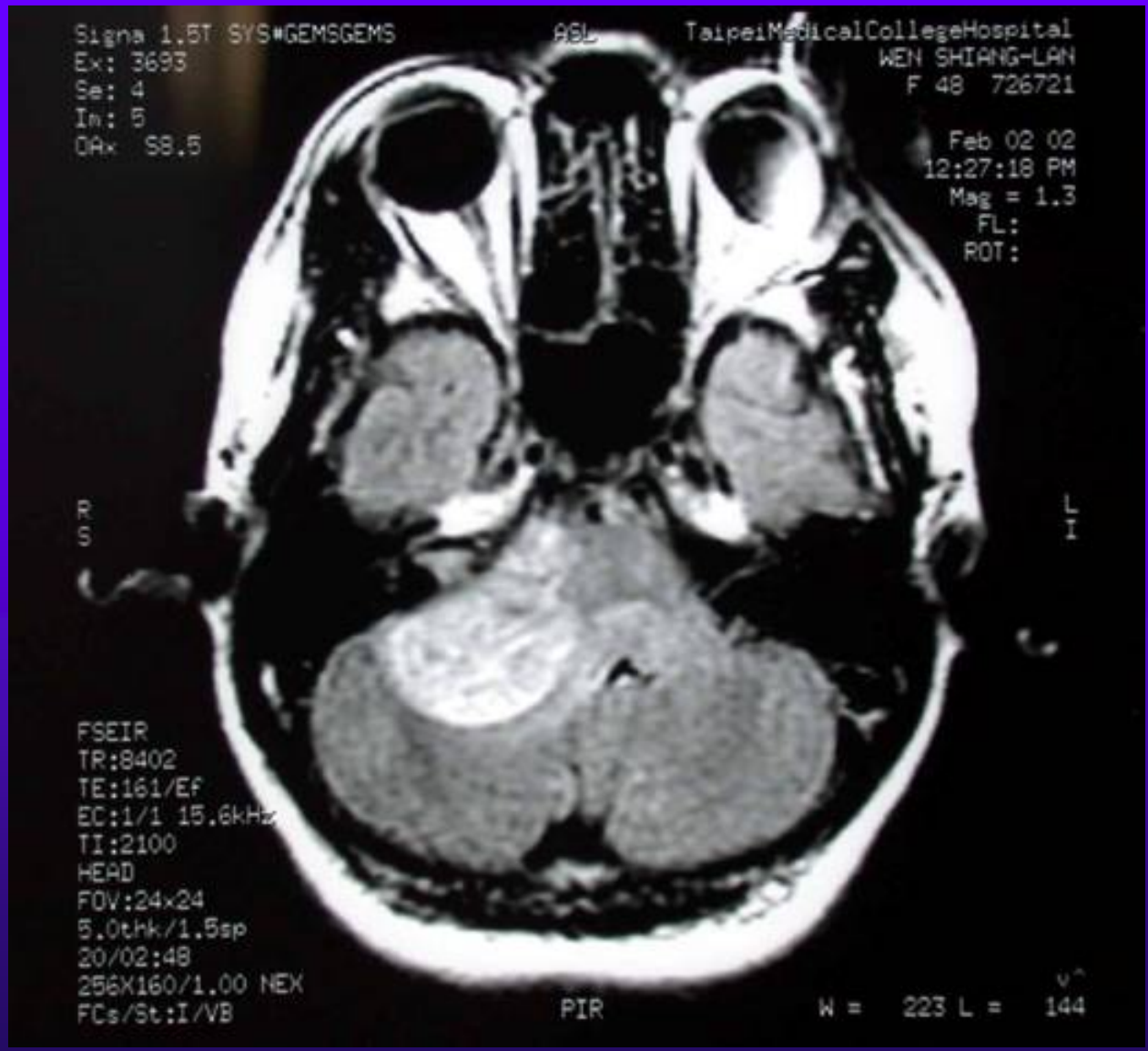
A well-defined low signal intensity mass at the right CP angle

T2 weighted image

The lesion brights up on both T2WI and FLAIR with the size about 3.7cm x 3cm x 3cm with compression the pons to the left

FLAIR

- .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WEN SHIANG-LAN
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Mag = 1.3
FL:
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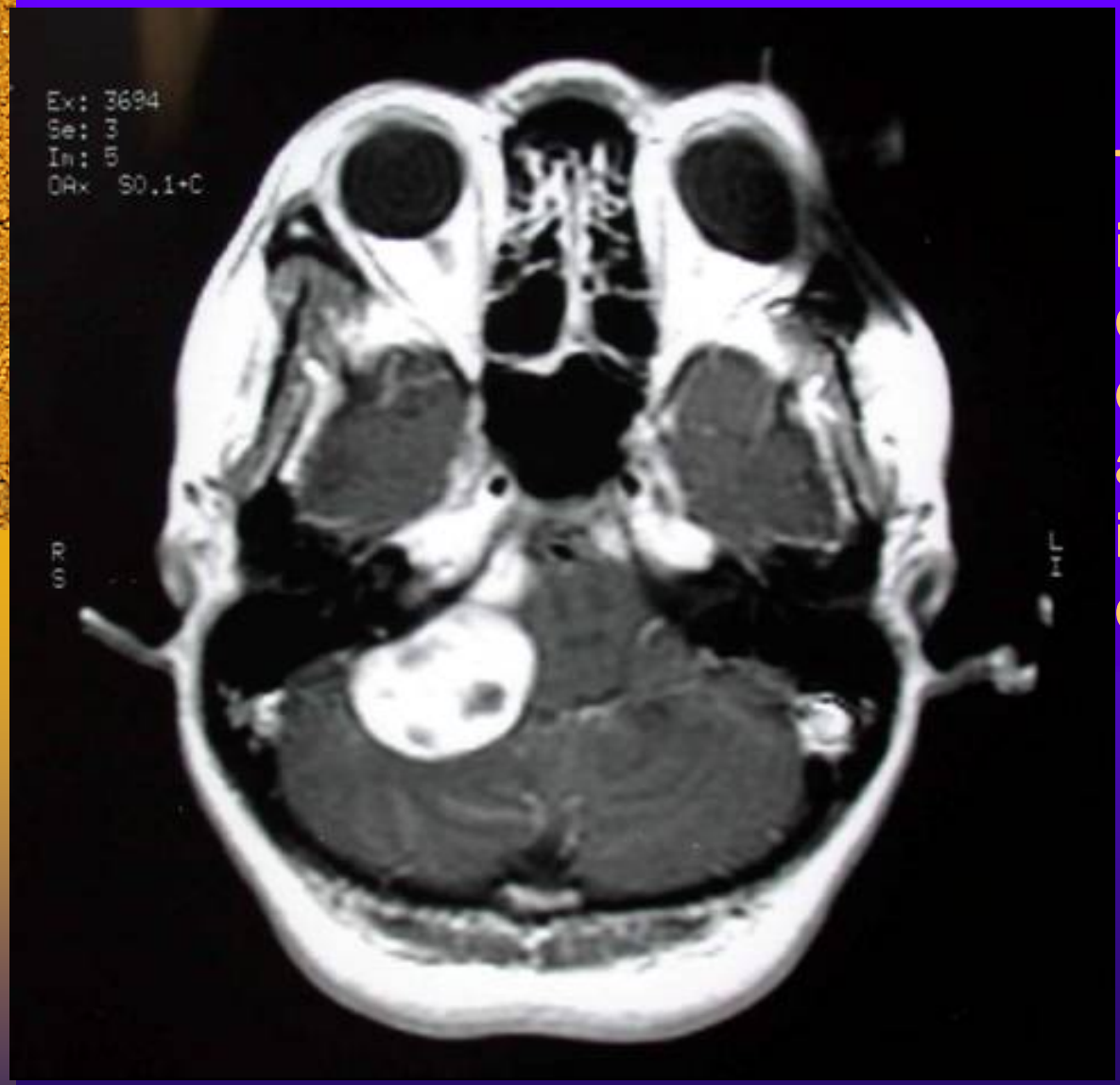
TR:8402
TE:161/Ef
EC:1/1 15.6kHz
TI:2100
HEAD
FOV:24x24
5.0thk/1.5sp
20/02:48
256X160/1.00 NEX
FCs/St:I/VB
PIR
W = 223 L = 144

T1 weighted image + contrast



The mass has imhomogeneous contrast enhancement and enlargment of internal acoustic canal

Differentiate diagnosis

- Posterior skull base

  ------ Cerebellopontine angle

  1. Acoustic neuroma
  2. Meningioma
  3. Epidermoid
  4. Trigeminal neuroma
  5. Cholesterol granuloma

Clinical features

- Hearing loss , facial numbness or weakness , dysmetria , ataxia , lower cranial nerve dysfunction , brain stem signs , increased intracranial pressure.

Acoustic Neuroma:

A. Location:

(a) arises from within internal auditory canal at the glial-Schwann cell junction of the vestibular component of 8th nerve in 95%

(b) may arise in cerebellopontine angle cistern at opening of IAC with intracanallcular extension in 5%

B. Radiologic findings:

1. Plain film:
erosion of IAC: a difference in canal height of >2 mm is abnormal + indicates a schwannoma in 93%

2. CT: a. isodense small or hypodense large solid tumor
b. large tumors may have cyst formation in or adjacent to tumor
c. usually uniformly dense tumor enhancement with small tumors or ring enhancement with large tumors
d. NO calcification

3. MR: (most sensitive test with Gd-DTPA enhancement)
   a. iso- or slightly hypointense on T1WI relative to brain
   b. hyperintense on T2WI
   c. intensely enhancing homogeneous mass or ring-like enhancement (if cystic) after Gd-DTPA

4. Angiography:
   a. elevation + posterior displacement of anterior inferior cerebellar artery on basal view
   b. elevation of the superior cerebellar artery
   c. displacement of basilar artery anteriorly or posteriorly + contralateral side
   d. compression or posterior + lateral displacement of petrosal vein
   e. posterior displacement of choroid point of PICA
   f. vascular supply frequently from external carotid artery
   g. rarely hypervascular tumor with tumor blush

Meningioma

- 60% of these tumors are isointense and 30% hypointense on T1WI.
- Remains hypo- or isointense on T2WI
- On T1WI + contrast image ,meningiomas show ***homogenous enhancement*** .

Epidermoid tumors

- Epidermoid tumors result from the inclusion of ***ectodermal elements*** during closureof the neural tube between the third and fifth week of gestation.
- Epidermoid tumors are ***nonenhancing*** on CT and MRI examination but may reveal slight signal increase on proton weighted and T2 weighted images.

Cholesterol granuloma

- Fat signal intensity

  ------→ T1 weighted image reveals cholesterol granuloma.