

MULTIPLE SCLEROSIS

14 CASE PRESENTATION WITH INTERESTING MRI MANIFESTATION BY H. PAKDAMAN MD*

*Professor of neurology

*Department of Neurology, Loghman Hospital, Shahid
Beheshti University of Medicine, Tehran, Iran*

CASE 1

MULTIPLE SCLEROSIS AND SICCA SYNDROME

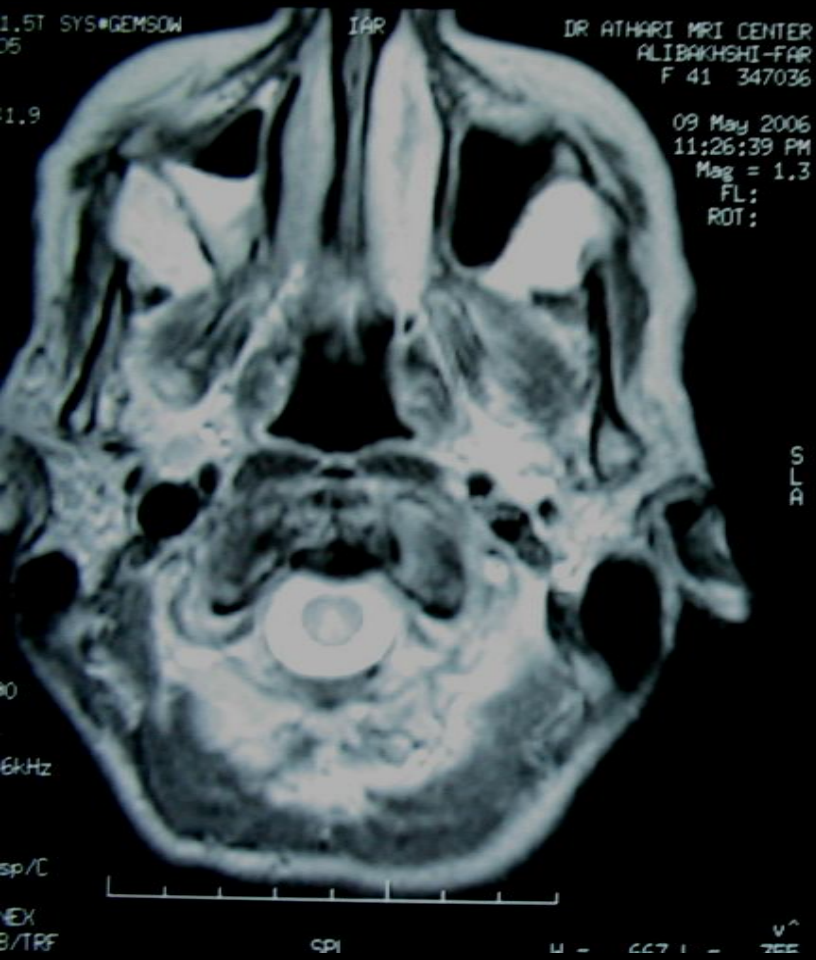
*Department of Neurology, Loghman
Hospital, Shahid Beheshti University of
Medicine, Tehran, Iran*

CLINICAL AND PARACLINICAL FINDINGS

- A 41 YEARS OLD FEMALE WAS IN GOOD HEALTH WHO DEVELOPED WITH GRADUAL ONSET OF NUMBNESS OF LEFT UPPER LIMB THAT PROGRESS TO OTHER LIMBS AND DIFFICULTY IN WALKING 2-3 MONTHS PTA IN LAMC.
- PAST HISTORY HISTORY WAS UNREMARKABLE EXCEPT SICCA SYNDROME SINCE 4-YEARS AGO
- IN N/E SPASTIC QUADRIPARESIA(DOMINANT IN LEFT SIDE) WITH ABNORMAL DEEP AND SUPERFACIAL SENSATION WITH NO ABNORMAL SENSORY LEVEL.
- ABNORMAL VEP IN BOTH EYES, POSITIVE OCB, NORMAL EMG-NCV STUDY.
- POSITIVE ANTI-SJOGRE'S ANTIBODY.

MRI FINDINGS

- **Multiple T2W hypersignal lesions in periventricular , centrum semioval and corpus callosal white matter**
- **A large T2W hypersignal and T1W hyposignal lesion with syrinx formation and hydromyelia in cervical spinal cord**

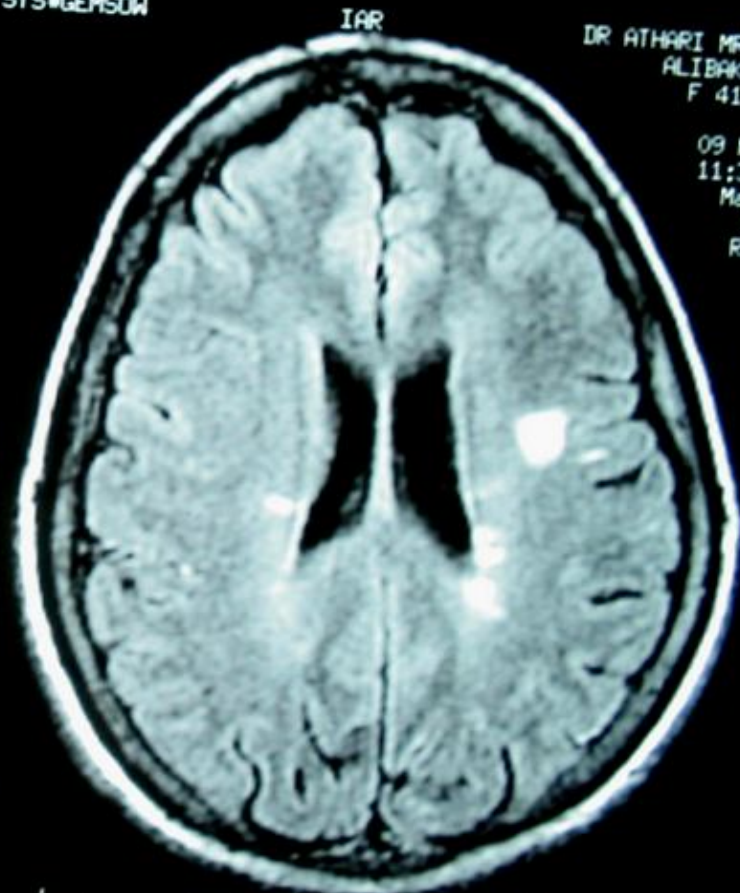




DR ATHARI MRI CENTER
ALIBAKHSHI-FAR
F 41 347036

09 May 2006
11:36:57 PM
Mag = 1.1
FL:
ROT:

Signa 1.5T SYS#GEMSON
Ex: 1205
Se: 5
In: 14
OAx S42.5



DR ATHARI MRI CENTER
ALIBAKHSHI-FAR
F 41 347036

09 May 2006
11:36:57 PM
Mag = 1.1
FL:
ROT:

T2Flair/90
TR:8002
TE:188/Ef
EC:1/1 15.6kHz
TI:2000
HEAD
FOV:22x22
6.0thk/0.5sp
20/02:40
224X192/1.00 MEX
FR=

SPL

W = 138 L = 92

R/L

R/P

R/L

MAGNOM

T6P

DR ATHARI MRI CENTER
ALIBAKHSHI-FAR
F 41 347036

09 May 2006
11:36:57 PM
Mag = 1.1
FL:
ROT:

Signa 1.5T SYS#GEMSON
Ex: 1205
Se: 5
In: 14
DAx S42.5

IAR

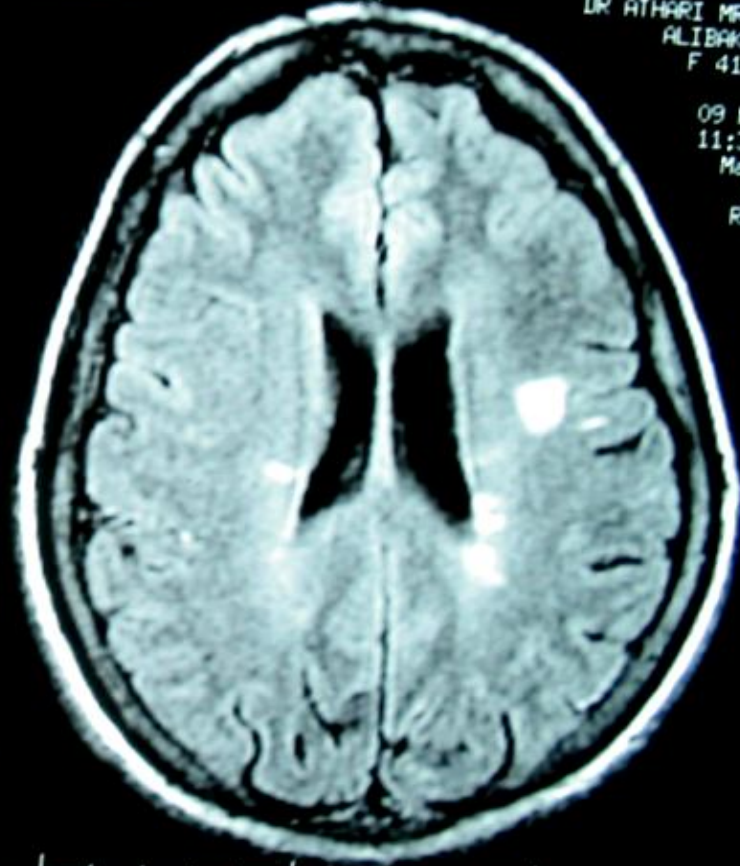
DR ATHARI MRI CENTER
ALIBAKHSHI-FAR
F 41 347036

09 May 2006
11:36:57 PM
Mag = 1.1
FL:
ROT:



L

R



R

T2Flair/90
TR:8002
TE:188/Ef
EC:1/1 15.6kHz
TI:2000
HEAD
FOV:22x22
6.0thk/0.5sp
20/02:40
224K192/1.00 MEX
FR-

SPL

W = 138 L = 92

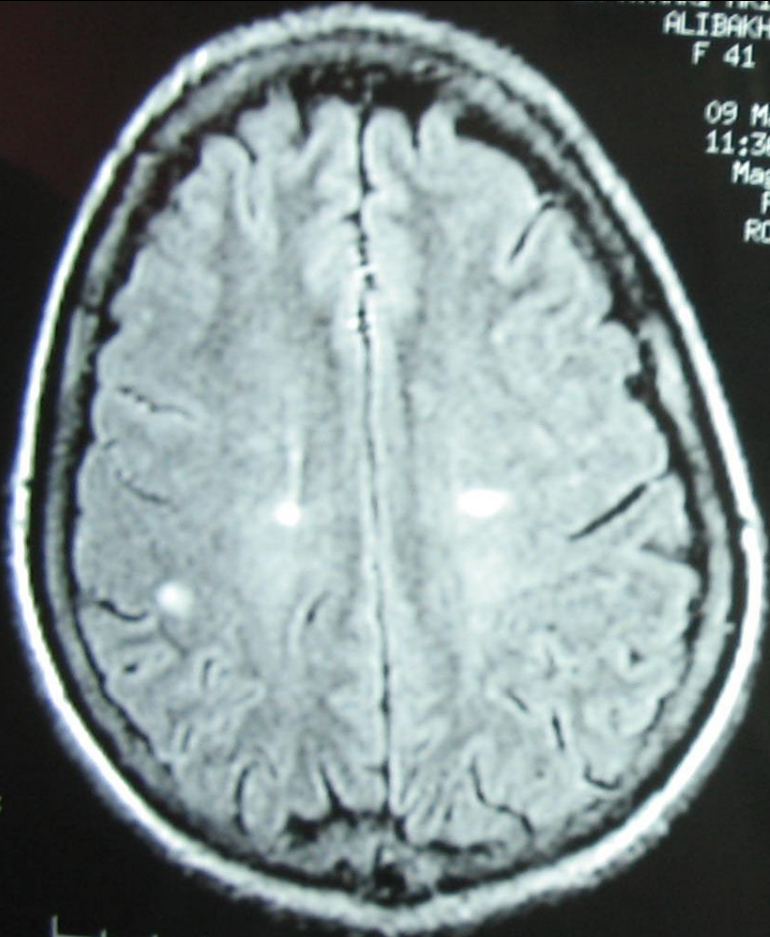
ALIBAKHSI-FAR
F 41 347036

09 May 2006
11:36:57 PM
Mag = 1.1
FL:
ROT:

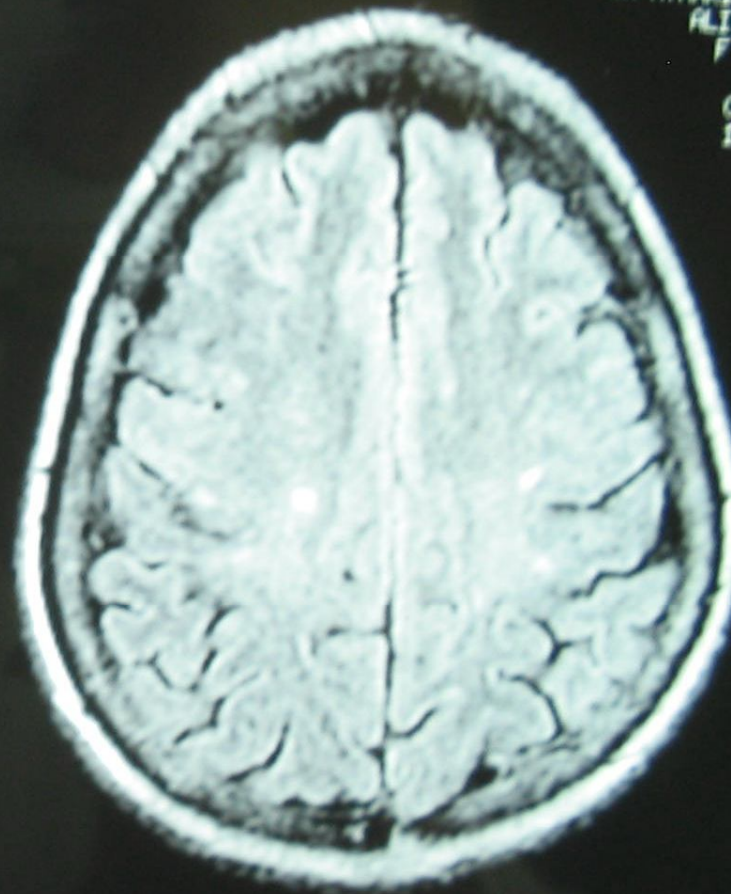
Signa 1.5T SYS#GEMSO
Ex: 1205
Se: 5
In: 16
DAx S55.5

IAR

DR ATHARI
ALI
F



L
R



T2flair/90
TR:8002
TE:188/Ef
EC:1/1 15.6kHz
TI:2000
HEAD
FOV:22/22
6.0thk/0.5sp
20/02:40
224X192/1.00 MEV

SPL

W = 138



Ex: 1205
Se: 4
Im: 11
OSag L20.8

ALIBAKHSI-FAR
F 41 347036
09 May 2006
11:34:32 PM
Mag = 1.1
FL:
ROT:

Ex: 1205
Se: 4
Im: 12
OSag L26.7

ALIBAKHSI-FAR
F 41 347036
09 May 2006
11:34:32 PM
Mag = 1.1
FL:
ROT:

ET:20

ET:20

0.7000

1.1000

0.7000

1.1000

FRFSE-ML/90
TR:4000
TE:89.7/EF
EC:1/1 25Hz

FRFSE-ML/90
TR:4000
TE:89.7/EF
EC:1/1 25Hz

HEAD

HEAD
FTN:24x24

Ex: 1205
Se: 4
In: 11
OSag L20.8

ALIBAKHSI-FAR
F 41 347036
09 May 2006
11:34:32 PM
Mag = 1.1
FL:
ROT:

Ex: 1205
Se: 4
In: 12
OSag L26.7

ALIBAKHSI-FAR
F 41 347036
09 May 2006
11:34:32 PM
Mag = 1.1
FL:
ROT:

ET:20

ET:20

S:200

S:200

S:200

S:200

FRFSE-ML/90
TR:4000
TE:89.7/ef
EC:1/1 25kHz

FRFSE-ML/90
TR:4000
TE:89.7/ef
EC:1/1 25kHz

HEAD

HEAD
FDV:24x24

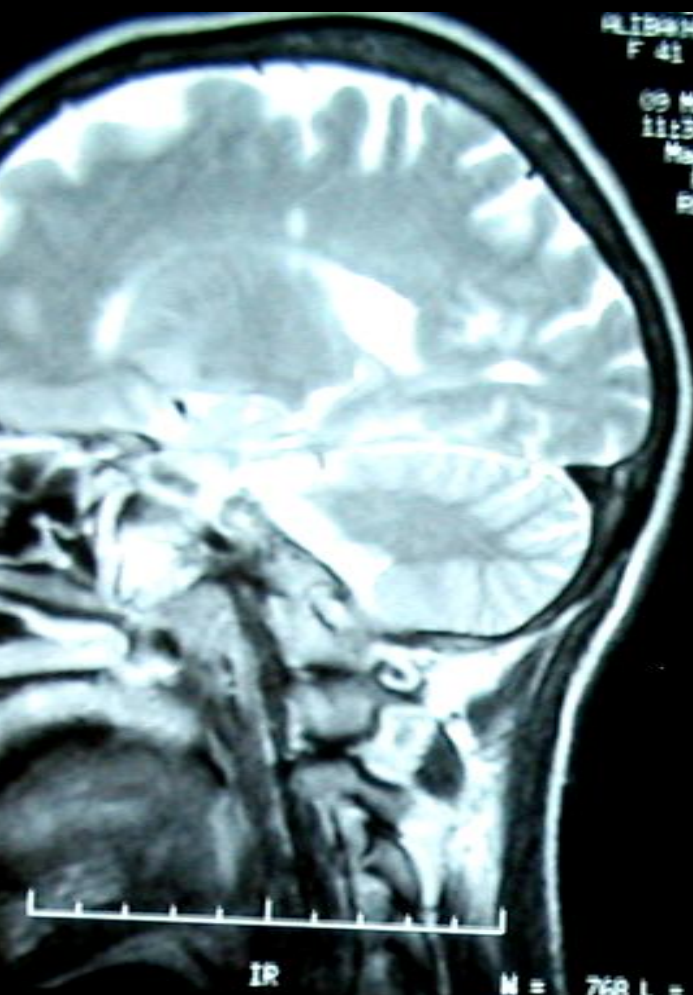
Int 5
OSag R15.0

ET:20

01000

FFSE-VL/90
TR:4000
TE:89.7/EF
EC:1/1 25-Hz

HEAD
FOV:24x24
5.0cm/1.0cm
16/01:44
320x224/2 NEX
SI:AP/VB/TRF



IR M = 768 L = 419

ALIBAHGHAT-Fup
F 41 347036

09 May 2006
11:34:32 PM
Mag = 1.1
Flt:
ROT:

Sigma 1.5T SYNERGY

Ext 1205
Set 4
Int 6
OSag R9.1

ET:20

01000

FFSE-VL/90
TR:4000
TE:89.7/EF
EC:1/1 25-Hz

HEAD
FOV:24x24
5.0cm/1.0cm
16/01:44
320x224/2 NEX
SI:AP/VB/TRF



IR M = 768 L = 419

ALIBAHGHAT-Fup
F 41 347036

09 May 2006
11:34:32 PM
Mag = 1.1
Flt:
ROT:







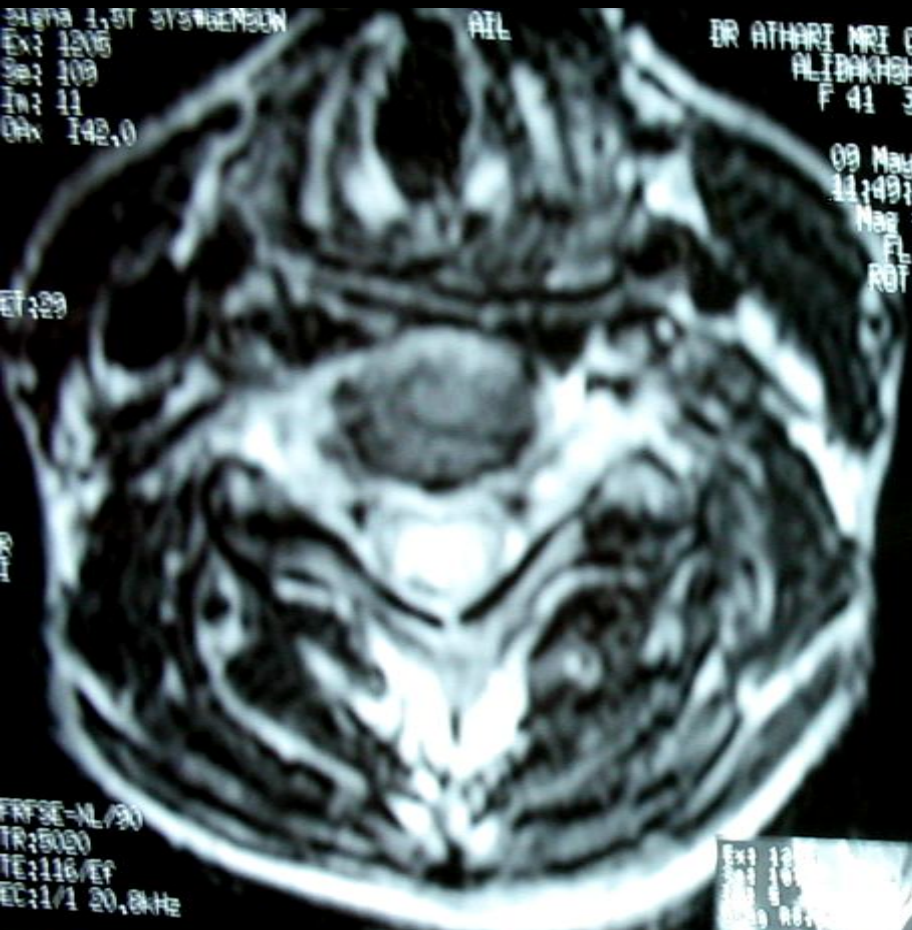
Siemens 1.5T SYMBION
Ex: 1206
Se: 109
In: 12
DAX: 142.0

AIL

DR ATHARI MRI CENTER
ALIBAKHSHI-FAR
F 41 347036

09 May 2008
11:49:28 PM
Mag = 1.9
FL:
ROT:

ET:29



FRFSE-NL/30
TR:5000
TE:116/EF
EC:1/1 20.8kHz

USC812/SCIC
FOV:20x20
4.0cm/0.0sp/C
15/02:26
224X192/4 NEX
FCs/St:1a/NP/VB/TRF/Z512



PSR



W = 606 L = 376

Siemens 1.5T SYMBION
Ex: 1206
Se: 109
In: 12
DAX: 140.5

AIL

DR ATHARI MRI CENTER
ALIBAKHSHI-FAR
F 41 347036

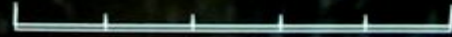
09 May 2008
11:49:28 PM
Mag = 1.9
FL:
ROT:

ET:29



FRFSE-NL/30
TR:5000
TE:116/EF
EC:1/1 20.8kHz

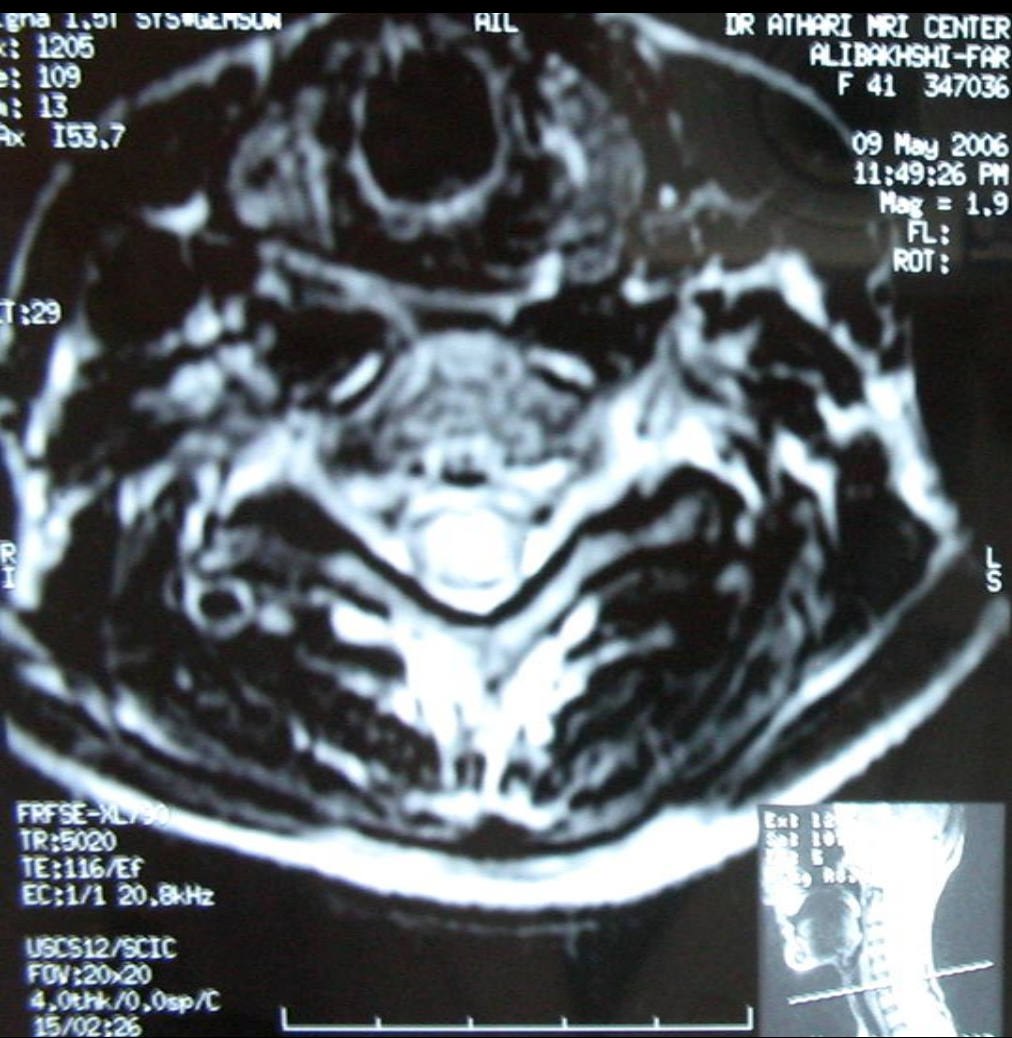
USC812/SCIC
FOV:20x20
4.0cm/0.0sp/C
15/02:26
224X192/4 NEX
FCs/St:1a/NP/VB/TRF/Z512

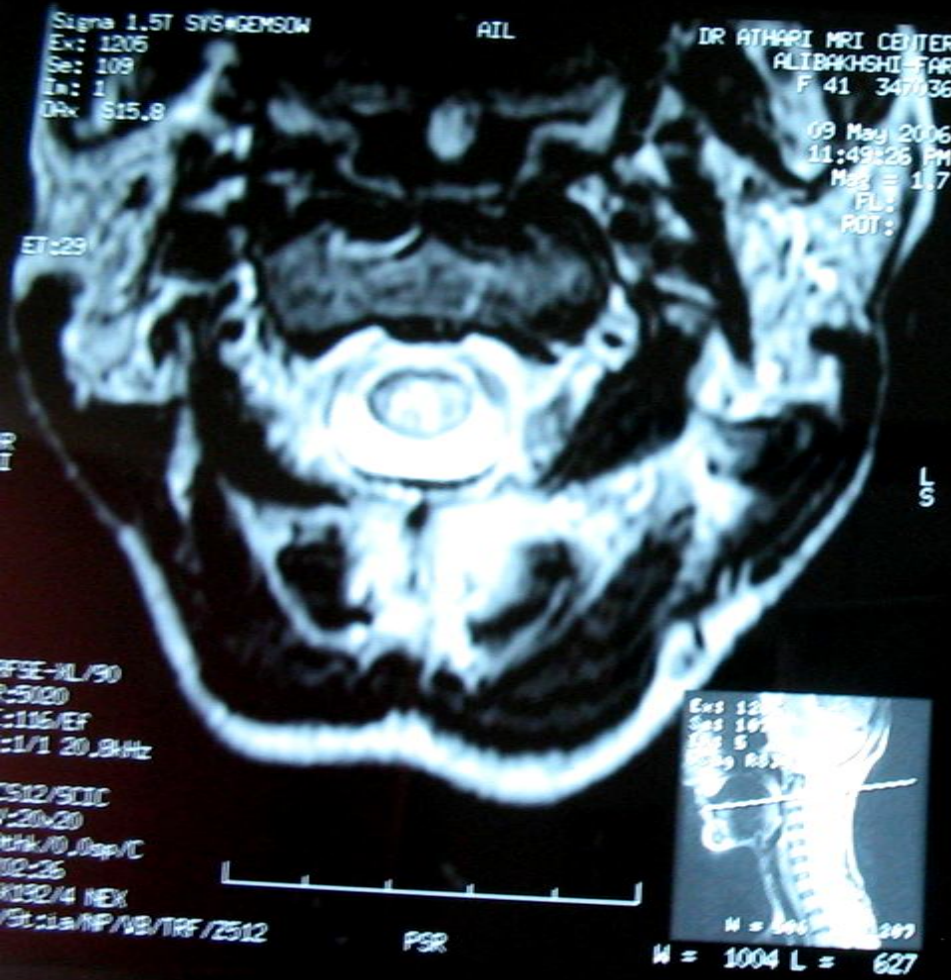


PSR



W = 606 L = 376





CASE 2

MULTIPLE SCLEROSIS OR SUSAC'S SYNDROME

*Department of Neurology, Loghman
Hospital, Shahid Beheshti University of
Medicine, Tehran, Iran*

CLINICAL AND PARACLINICAL FINDINGS

- 23 years old female who was excellent health until 3 days PTA who developed with sudden onset nausea, vomiting, vertigo, unsteady gait, blurred vision in left eye, hearing loss in left ear, paresthesia in her perineum and her both lower limbs, urinary incontinence, urgency and frequency .
- N/E showed impaired left visual acuity(2/10) , end point nystagmus in horizontal eye movements in both side, sensory neural hearing loss in her left side and spastic paraparesis. her proprioceptive sensory in all 4 limbs were abnormal .Her gait ataxic and her tandem gait was abnormal.
- Normal VEP, positive OCB and normal Fluoresin Angiography of retina, SNHL in left ear, routine lab tests including collagen vascular diseases were reported normal.



MRI FINDINGS

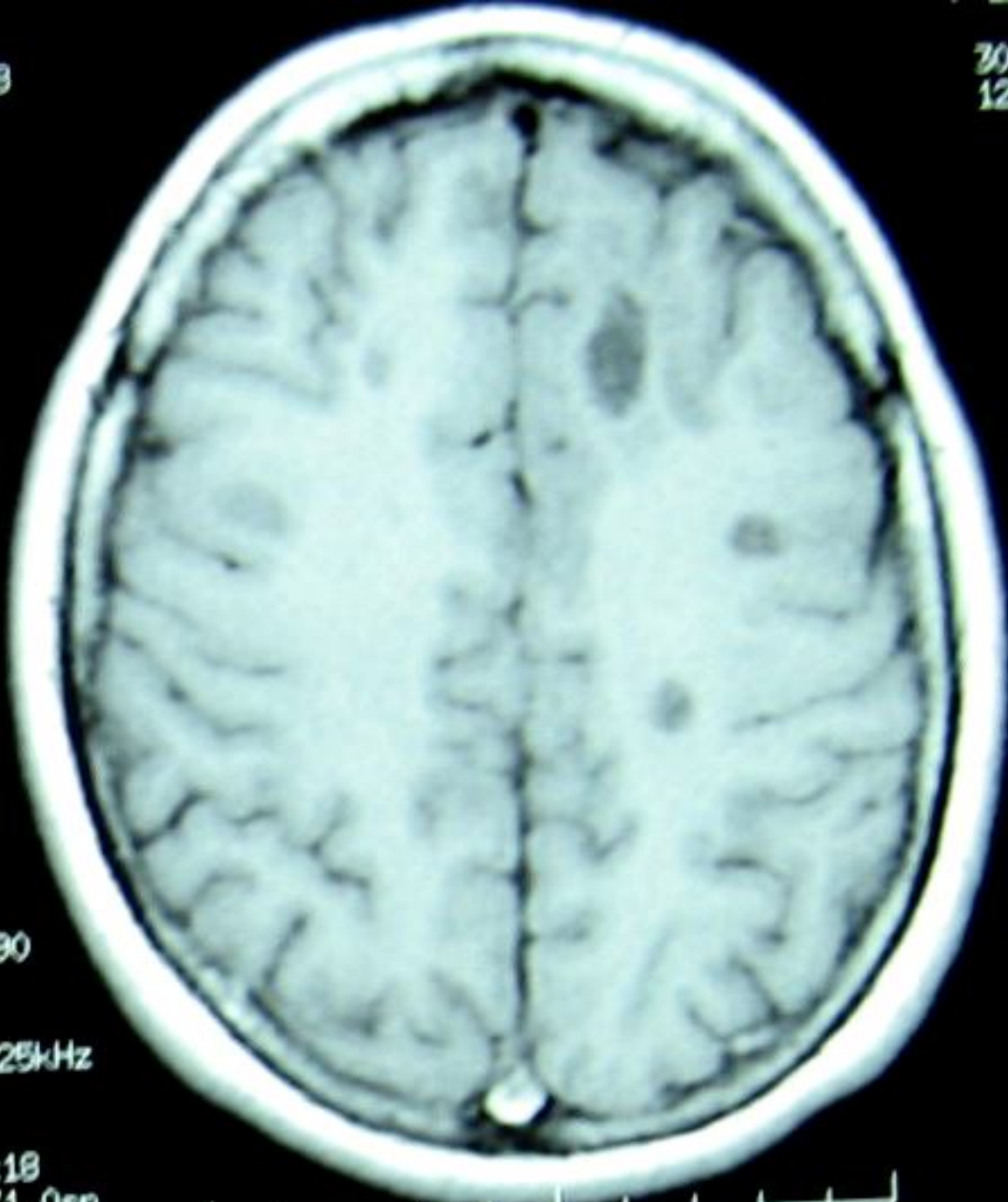
- Multiple T2W hypersignal lesion in periventricular , centrum semioval and corpus callosal white matter that enhanced by GAD injection
- Multiple T2W hypersignal lesions in cervicothoracic region



4
16
S66.8

30 Jan 2004
12:58:50 PM
Mag = 1.1
FL;
ROT;

2



E-XL/90
:440
:9/Ef
:1/1 25kHz

EAD
V:24x18
.0thk/1.0sp
0/02:11



Ex: 16521
Se: 3
In: 28
DAx 951.0

DR. ATHARI MRI CENTER
PAYEGAN SUDEH
F 22 297292

30 Jan 2006
12:55:19 AM
Mag = 1.3
FL:
ROT:

ET:17

R
9
2

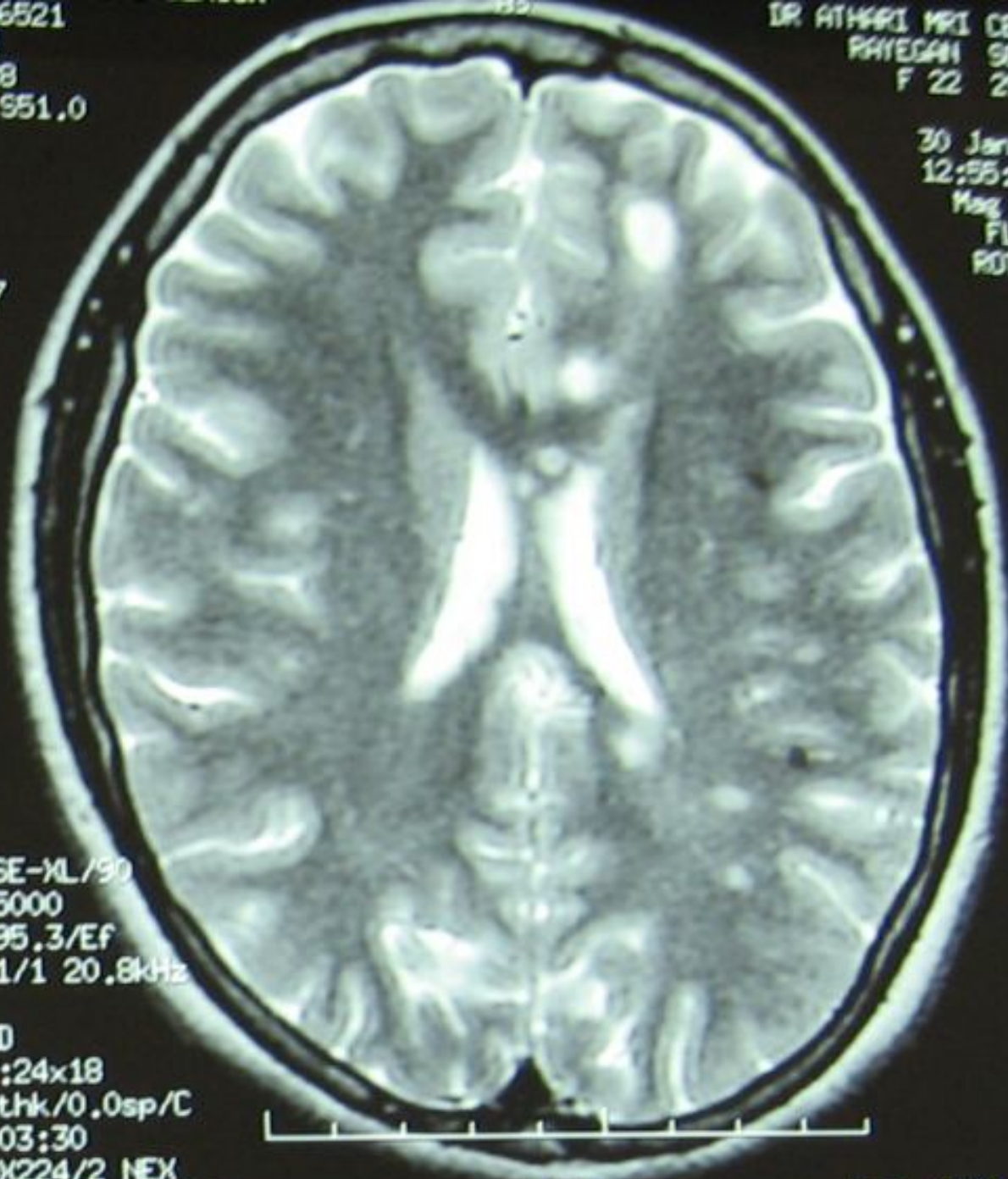
L
9
2

FRFSE-ML/90
TR:5000
TE:95.3/EF
EC:1/1 20.8kHz

HEAD
FOV:24x18
3.0thk/0.0sp/C
44/03:30
320X224/2 NEX
FCs/St:I/VB/TRF

PI

W = 4261 L = 2609



Signa 1.5T SYS#GEMSON
Ex: 16521
Se: 3
In: 32
OAx S63.0

DR HAYAT
RAYEGAN SOODEH
F 22 297202

30 Jan 2006
12:55:19 AM
Mag = 1.3
FL:
ROT:

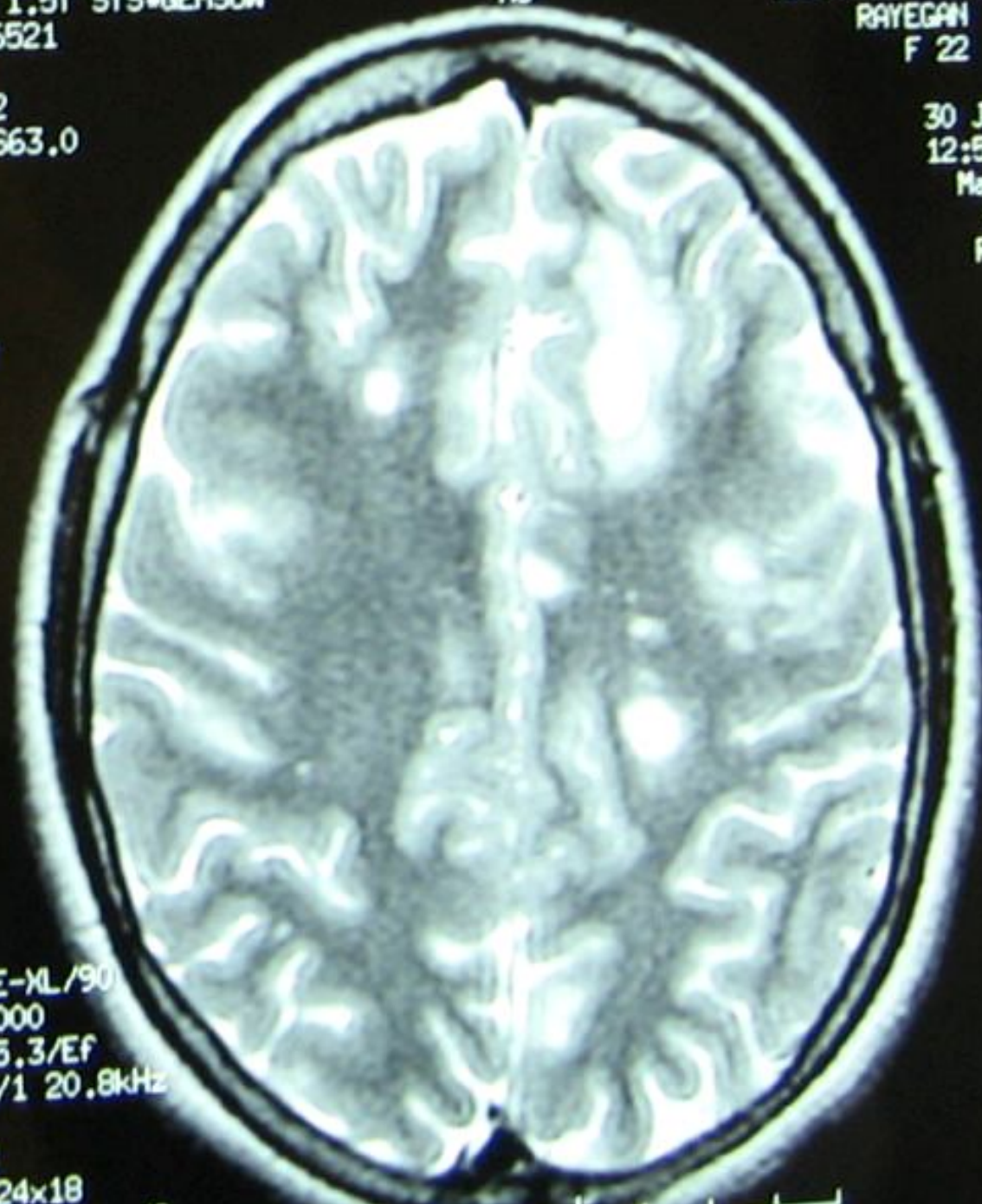
ET:17

R
29

L
30

FRFSE-XL/90
TR:5000
TE:95.3/Ef
EC:1/1 20.8kHz

HEAD
FOV:24x18



18521

3 116

DR. AHMADI MRI CENTER

RAYEGAN SUDEH

F 22 297202

V

R07.6

30 Jan 2005

12:52:54 AM

Mag = 1.2

PLC

ROTc

A 077

KL/50

D

REF

PLC	1.2
PLC	1.2
PLC	1.2
PLC	1.2



Ext 16521
Seq 2
In 10
OSag L4,4

S 118

DR. ATHARI MRI CENTER
RAYEGAN SOODEH
F 22 297202

30 Jan 2006
12:52:55 AM
Mag = 1.2
Fls
ROT

ET 128

UNCLIP 2

RFSE-KL/90
R14400
E1121/EF
C11/1 31.2kHz

EAD
OV124x24
.5tHk/0.0sp/C
6/01115
20X224/2 NEX
Cs/St/ISI/MP/VB/TRF

I 82



W = 930 L = 466

W = 3559 L = 1998

Sec: 2
Inc: 12
DSag L15.4

F 22 297202

30 Jan 2006
12:02:55 AM
FOV = 1.2
FOV = 1.2
FOV = 1.2

ET:28

WIP #

FRFSE-VL/90
TR:4400
TE:121/8F
EC:1/1 31.2Hz

HEAD
FOV:24x24
5.5thk/0.0sp/C
16/01:15
320X224/2 INEX



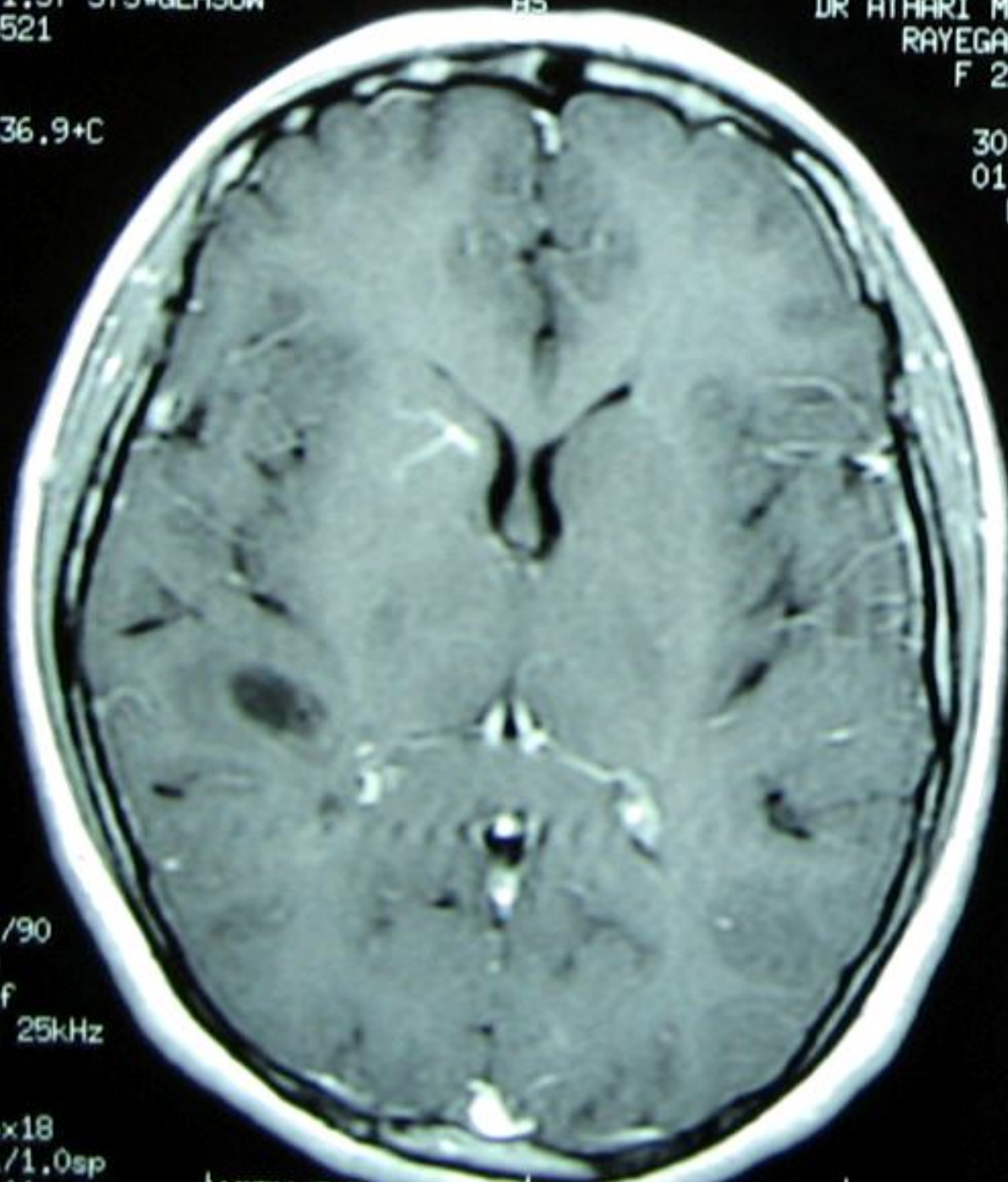
gna 1.5T SYS#GEMSUW
: 16521
: 5
: 11
k S36.9+C

AS

DR ATHARI MRI CENTE
RAYEGAN SOODEI
F 22 29720

30 Jan 2004
01:02:42 AM
Mag = 1.4
FL:
ROT:

:2



L
004

E-XL/90
:440
:9/EF
:1/1 25kHz

AD
V:24x18
Dthk/1.0sp
/02:11

WITH GD

6
3
A30,7+C

F 22 21

30 Jan
01:05:1
Mag :
FL
ROT



L/PC
10
1.5/PC
1 10 Hz

2x16
k/1.0
:50
60/2
t:I/VB/TRF

WITNIS.D

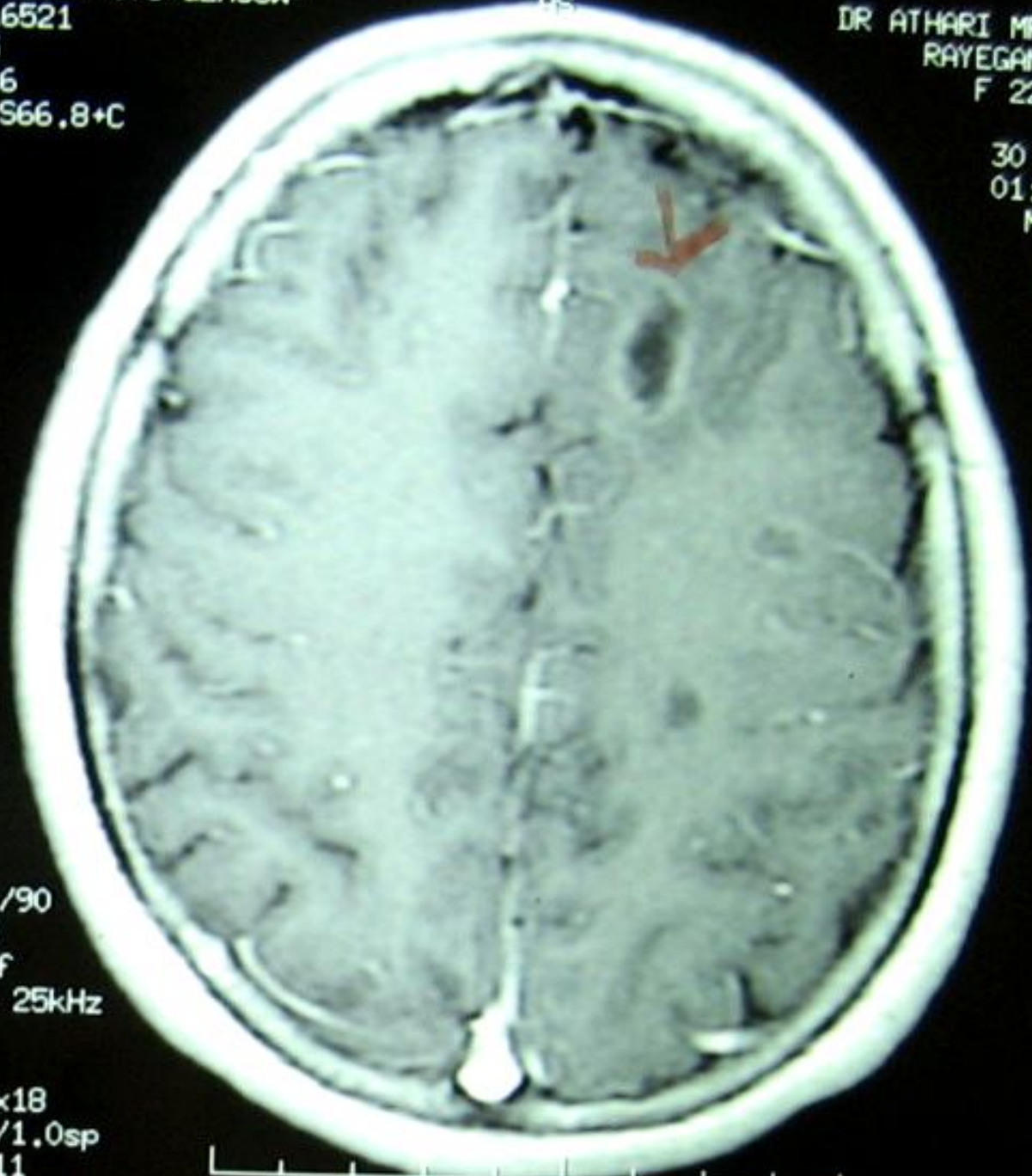
I 59

W = 300 L =

1.5T STS*GENSOW
L6521
5
L6
S66.8+C

DR ATHARI MRI C
RAYEGAN S
F 22 2

30 Jan
01:02:
Mag
FL
ROT



/90
f
25kHz

x18
/1.0sp
11
2.2 MV



Ex: 10017
Se: 103
Im: 3
OSag R5.3

30 Jan 2006

Mag = 2.0
FL:
ROTc

ET:33

FSE-XL/90
TR:3120
TE:117/Ef
EC:1/1 31.2kHz

3.0thk/1.0ap

I 76M = 4255 U = 2466

Se: 103
Im: 4
OSag R1.3

30 Jan 2006

Mag = 2.0
FL:
ROTc

ET:33

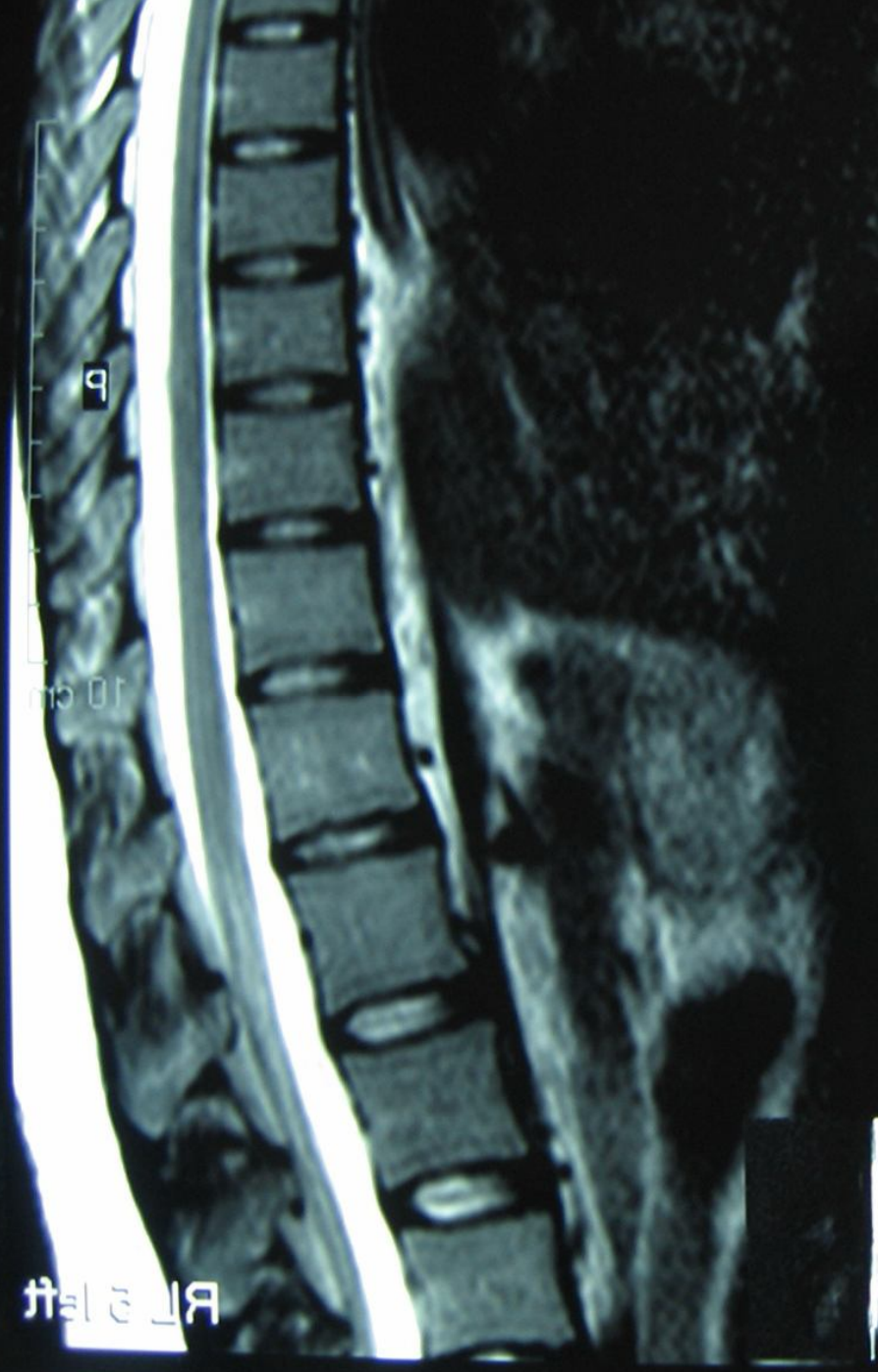
FRFSE-XL/90
TR:3120
TE:117/Ef
EC:1/1 31.2kHz

3.0thk/1.0ap

I 76M = 4255 U = 2466

P A
4 2
7 3

P A
4 2
7 3



CASE 3

BROWN-SEQUARD SYNDROME (CIS)

*Department of Neurology, Loghman
Hospital, Shahid Beheshti University of
Medicine, Tehran, Iran*



CLINICAL AND PARACLINICAL FINDINGS

- A 20-YEAR OLD RIGHT HANDED WOMAN WITH HISTORY GRADUAL ONSET RIGHT SIDED NUMBNESS AND WEAKNESS ONE WEEK PTA AND HISTORY OF RIGHT HAND TINGLING SEVERAL MONTHS AGO WHICH CLEARED AFTER ONE WEEK
- NEUROLOGICAL EXAME:RIGHT SIDED WEAKNESS WITH RIGHT UPGOING PLANTAR REFLEX,PSEUDOATHETOSIS AND LOSS OF POSITIONAL SENSATION IN RIGHT SIDE,SENSORY LOSS IN LEFT SIDE
- NO HISTORY OF BLURRED VISION ,AND CRANIAL NERVE WAS NORMAL
- ABNORMAL SENSORY EVOKED POTENTIAL(SEP) BUT VISUAL EVOKED POTENTIAL(VEP) AND AUDITORY EVOKED POTENTIAL(AEP) WAS NORMAL
- OLIGOCLONAL BAND (OCB) WAS POSITIVE IN CEREBROSPINAL FLUID(CSF)

MRI FINDINGS

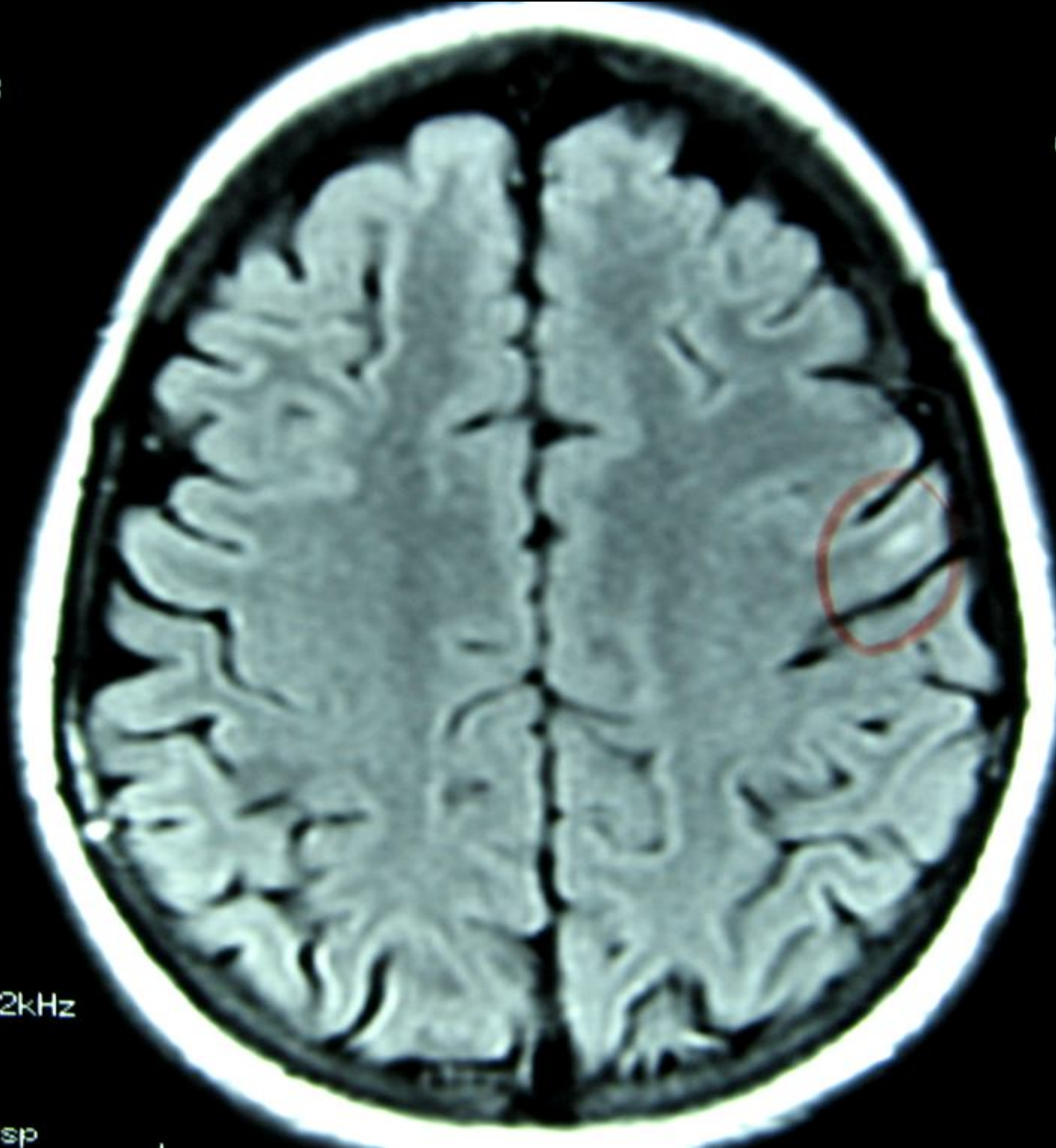
- **MULTIPLE PERIVENTRICULAR AND CENTRUM SEMIOVAL AND JUXTACORTICAL AND DEEP WHITE MATTER T2W HYPERSIGNAL LESION**
- **A LARGE HYPERSIGNAL T2W LESION IN RIGHT SIDE OF CERVICAL CORD**



JHFHR
F 20

27 De
02:38:1
Mag =
FL:
ROT:

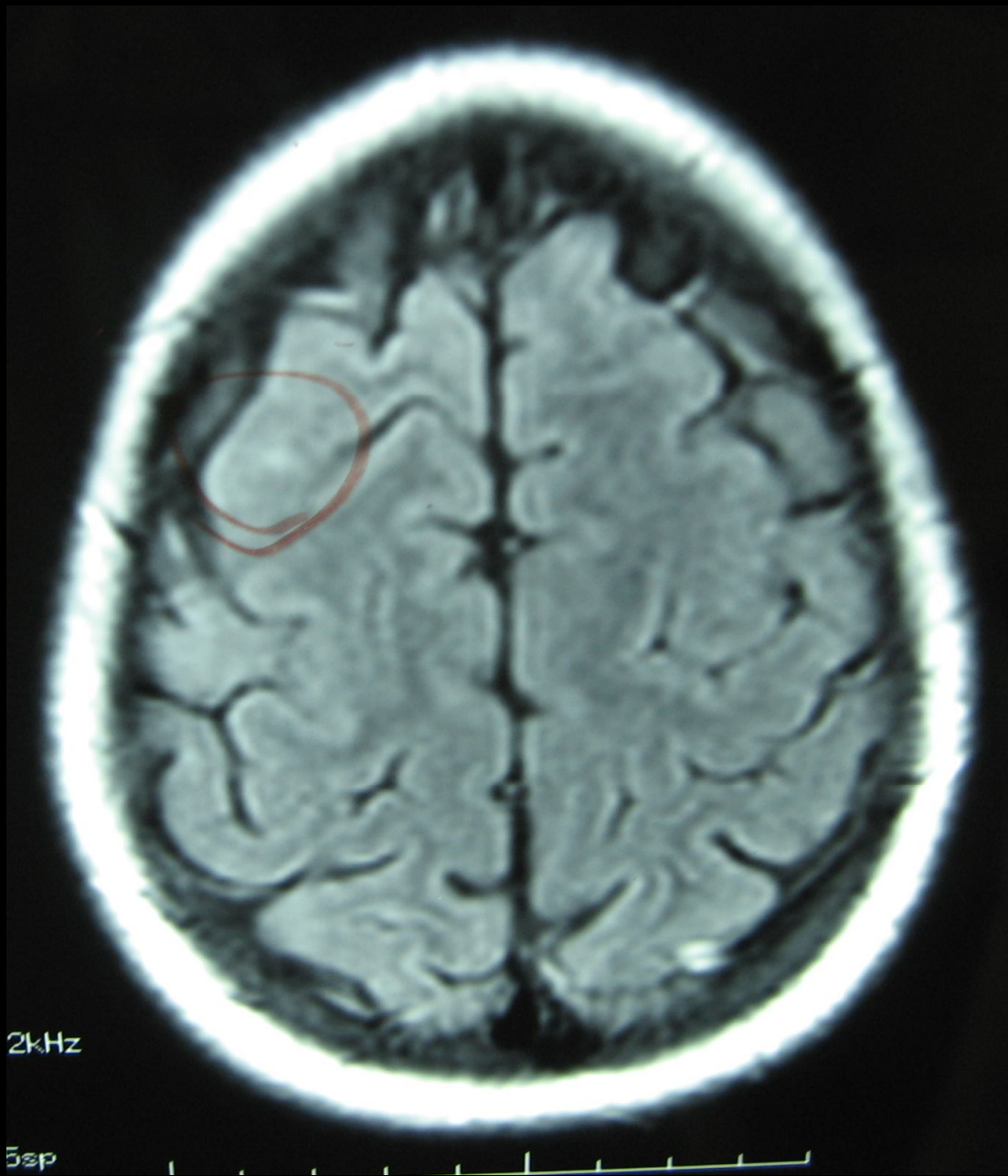
8

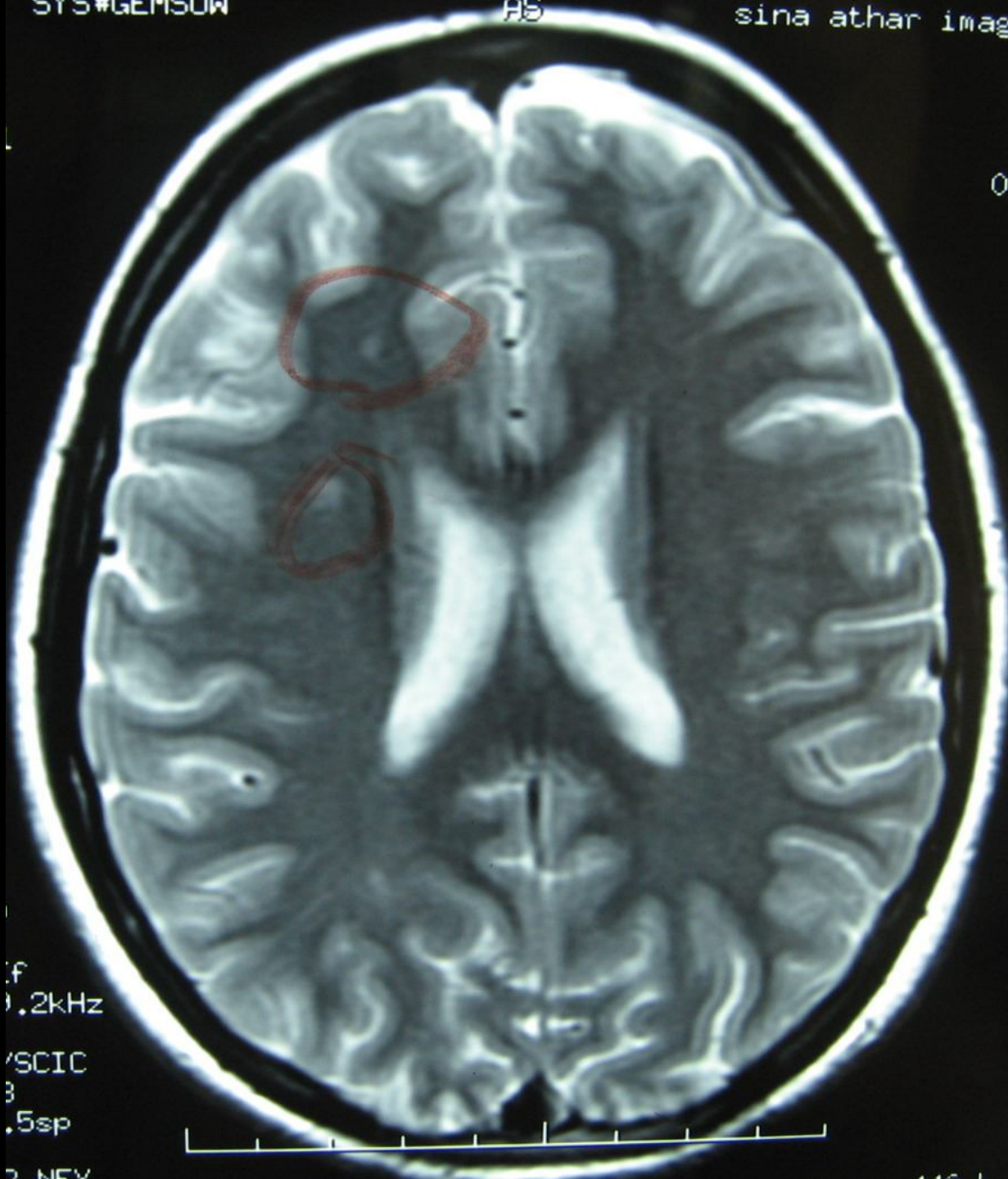


10

.2kHz

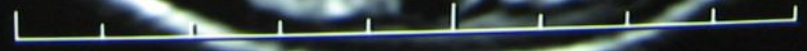
5sp





f
0.2kHz
/SCIC
3
.5sp

2 MEV



SYS#GEMSON

SR

sina athar ima



7kHz

sp

NEV



na 1.5T SYS#GEISON
1305
109
5
S18.5

AIL

sina bugar imaging center
JAFARI.EL.
F 20 3466

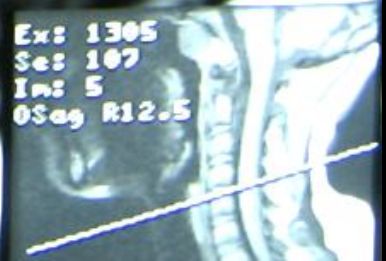
27 Dec 05
02:48:34 PM
Mag = 2.3
FL:
ROT:

5

EE-AL/90
R20
EF
Hz

S12

Ex: 1305
Se: 107
In: 5
OSeg R12.5



CASE 4

FULMINANT MYELITIS (CIS)

*Department of Neurology, Loghman Hospital, Shahid
Beheshti University of Medicine, Tehran, Iran*

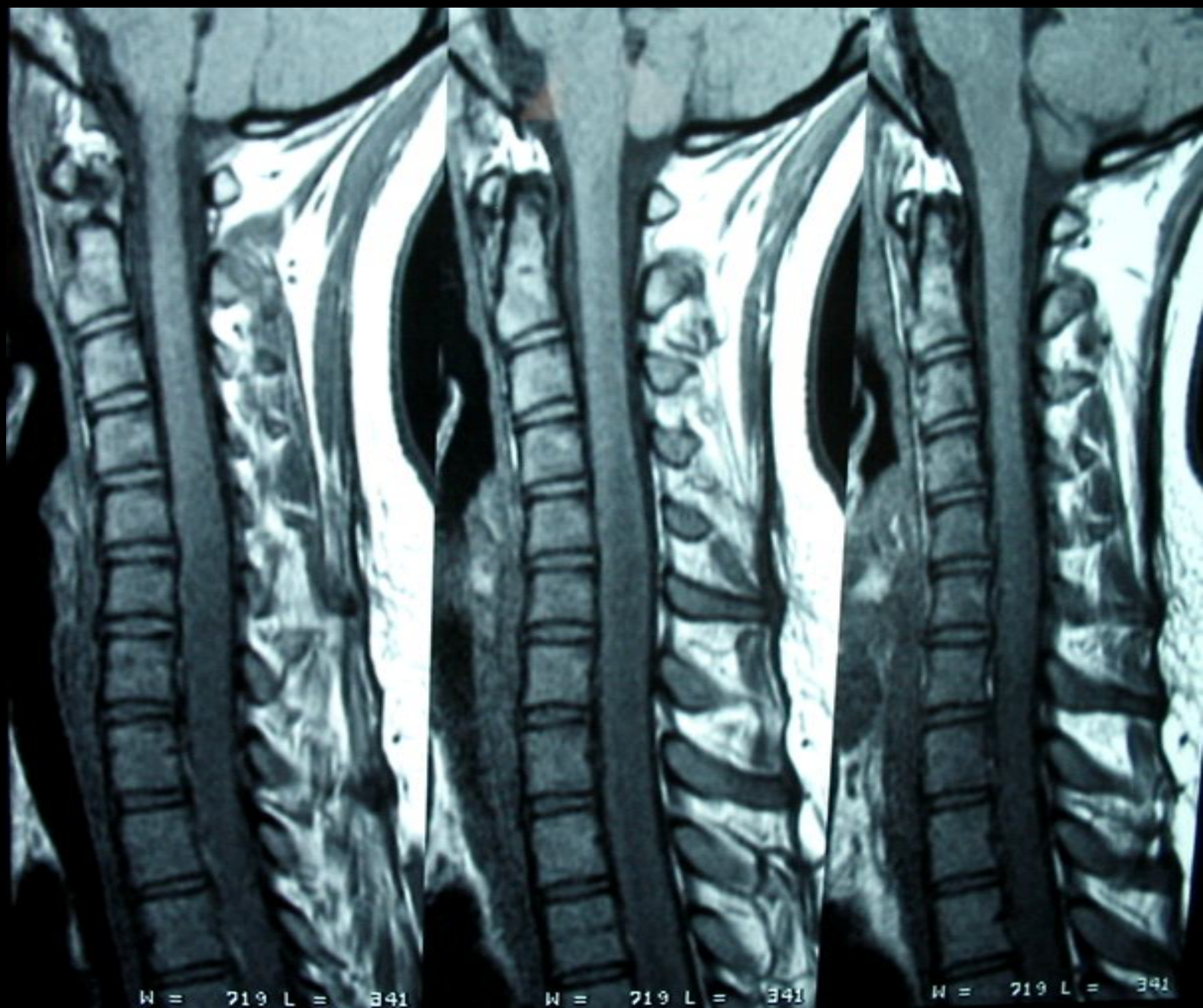
CLINICAL AND PARACLINICAL FINDINGS

- A 25-YEAR OLD WOMAN WITH HISTORY OF LOWER LIMBS WEAKNESS AND URINARY INCONTINENCE SINCE 3-4 DAYS PTA.
- IN N/E: PARAPARESIA WITH A SENSORY LEVEL AT T4-T5 OF THORACIC SPINE.
- PAST HISTORY : BLURING VISION IN LEFT EYE.
- VEP IS ABNORMAL IN LEFT EYE AND POSITIVE OCB IN CSF

MRI FINDINGS

- **BRAIN MRI WAS UNREMARKABLE**
- **A LARGE HYPERSIGNAL T2W LESION IN CERVICOTHORACIC SPINE WITHOUT GADOLINIUM ENHACEMENT**





W = 219 L = 341

W = 219 L = 341

W = 219 L = 341



W = 607 L = 278

W = 607 L = 278

W = 607 L = 278

20 Dec 2005
05:25:26 PM

Im: 5
OS09 L0.7

WITH GD++



P A

4.0thk/1.0sp

F 25Y 84092

20 Dec 2005
05:25:26 PM

WITH GD++



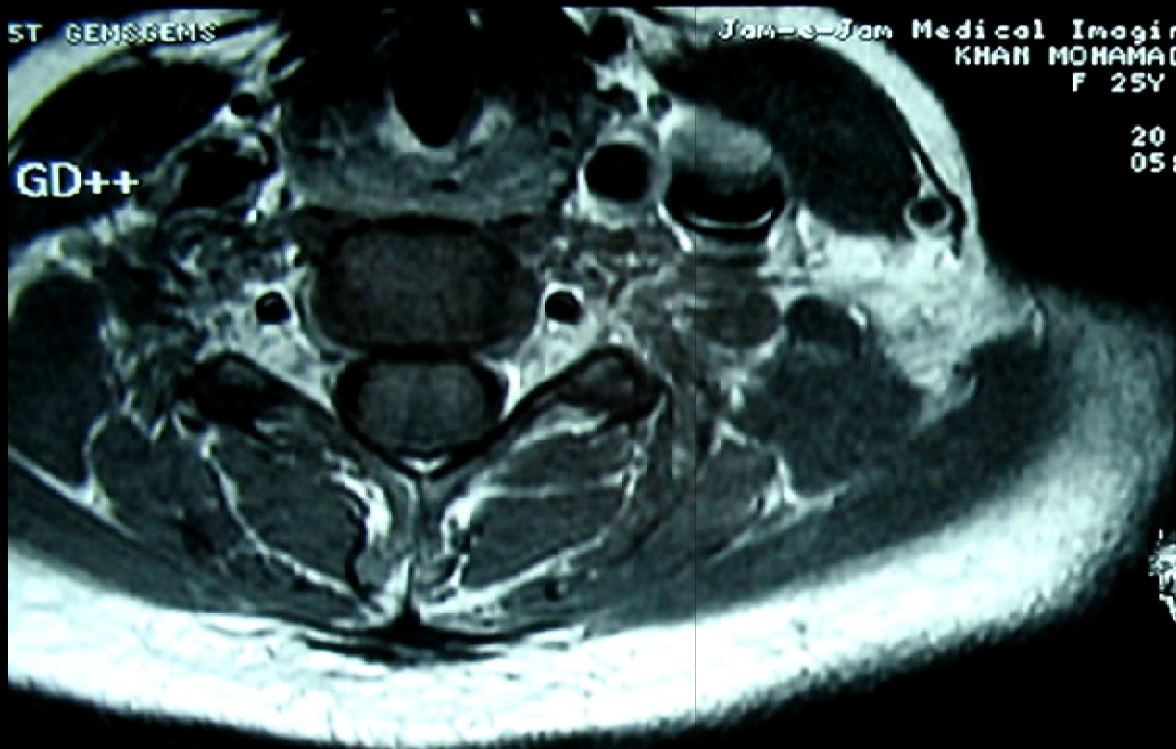
P

5T 6E8G6MS

Jam-e-Jam Medical Imaging Cente
KHAN MOHAMADI AAZA
F 25Y 8409293

20 Dec 200
05:30:09 P

GD++

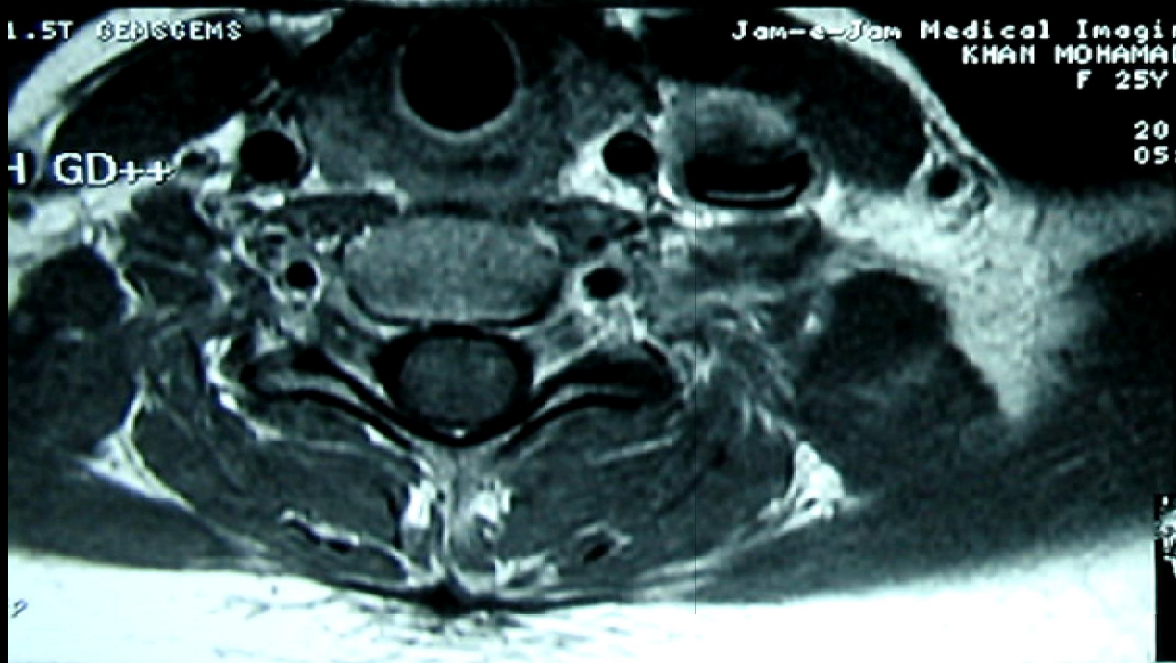


1.5T 6E8G6MS

Jam-e-Jam Medical Imaging Cente
KHAN MOHAMADI AAZA
F 25Y 8409293

20 Dec 200
05:30:09 P

GD++



CASE 5

ACUTE POLYSYMTOMATIC ATTACK WITH MULTIPLE RING ENHANCING LESIONS

*Department of Neurology, Loghman
Hospital, Shahid Beheshti University of
Medicine, Tehran, Iran*

CLINICAL AND PARACLINICAL FINDINGS

- A 27-YEAR OLD WOMAN WITH HISTORY OF NAUSEA ,VOMITING,VERTIGO,LEFT EAR TINITUS AND DIFFICULTY WALKING FROM 2 WEAKS PTA.
- HISTORY OF MYOKYMIA IN LEFT EYELID FROM 1-YEAR PTA AND NO HISTORY OF BLURRED VISION
- ABNORMAL VEP IN BOTH EYES AND POSITIVE OCB IN CSF

MRI FINDINGS

- **MULTIPLE SMALL T2W HYPERSIGNAL LESION IN PERIVENTRICULAR, DEEP WHITE MATTER, CENTRUM SEMIOVAL AND CORPUS CALLOSUM**
- **MULTIPLE ENHANCING LESION IN DEEP WHITE MATTER, CEREBELLUM AND BRAINSTEM**



c 10
E/M
- 6

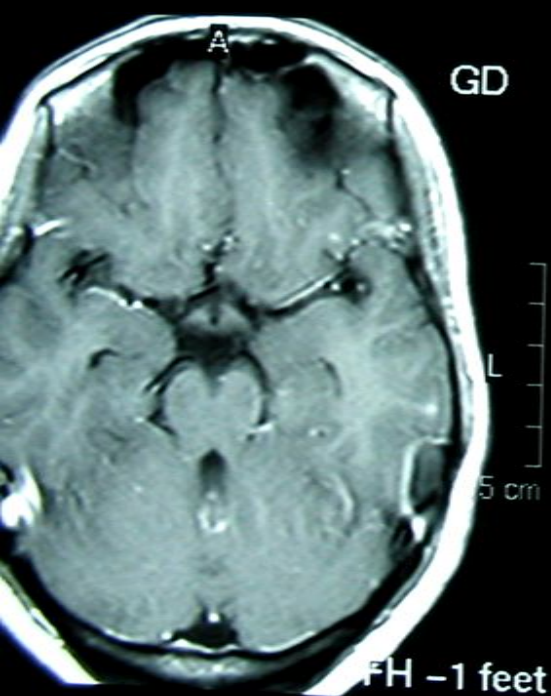
GD



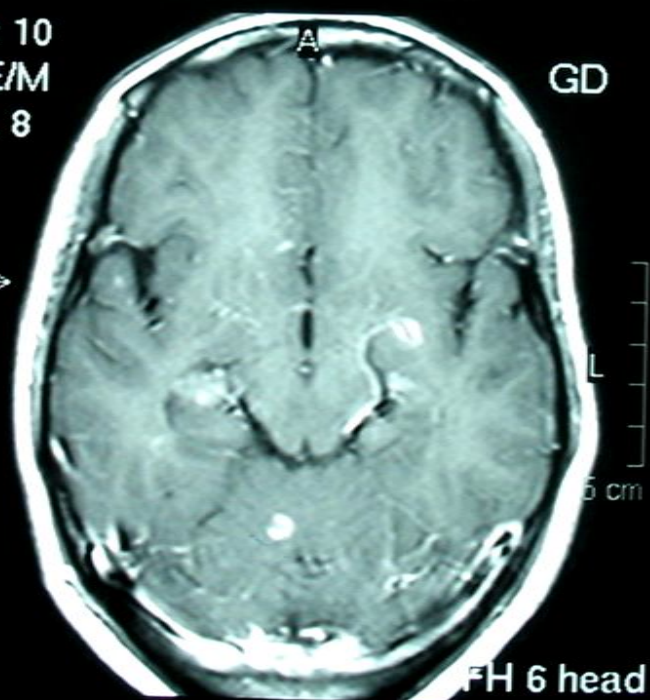
L

5 c

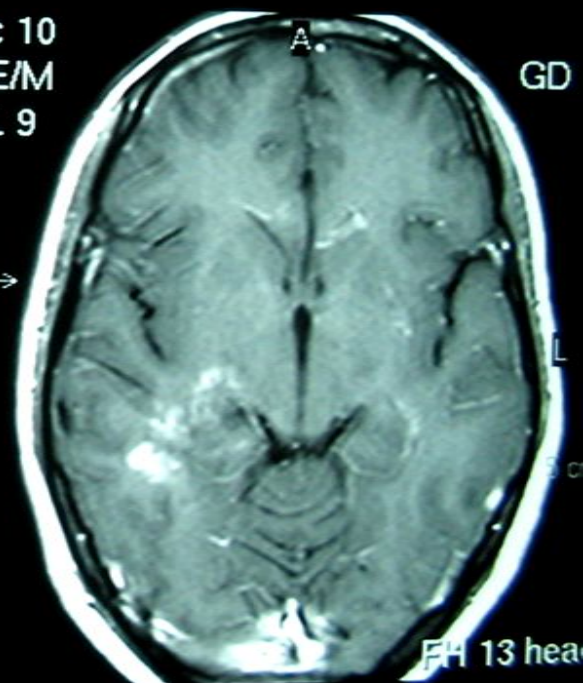
FH -8 fe



Sc 10
SE/M
SL 8



Sc 10
SE/M
SL 9



Sc 9
SE/M
SL 10

H

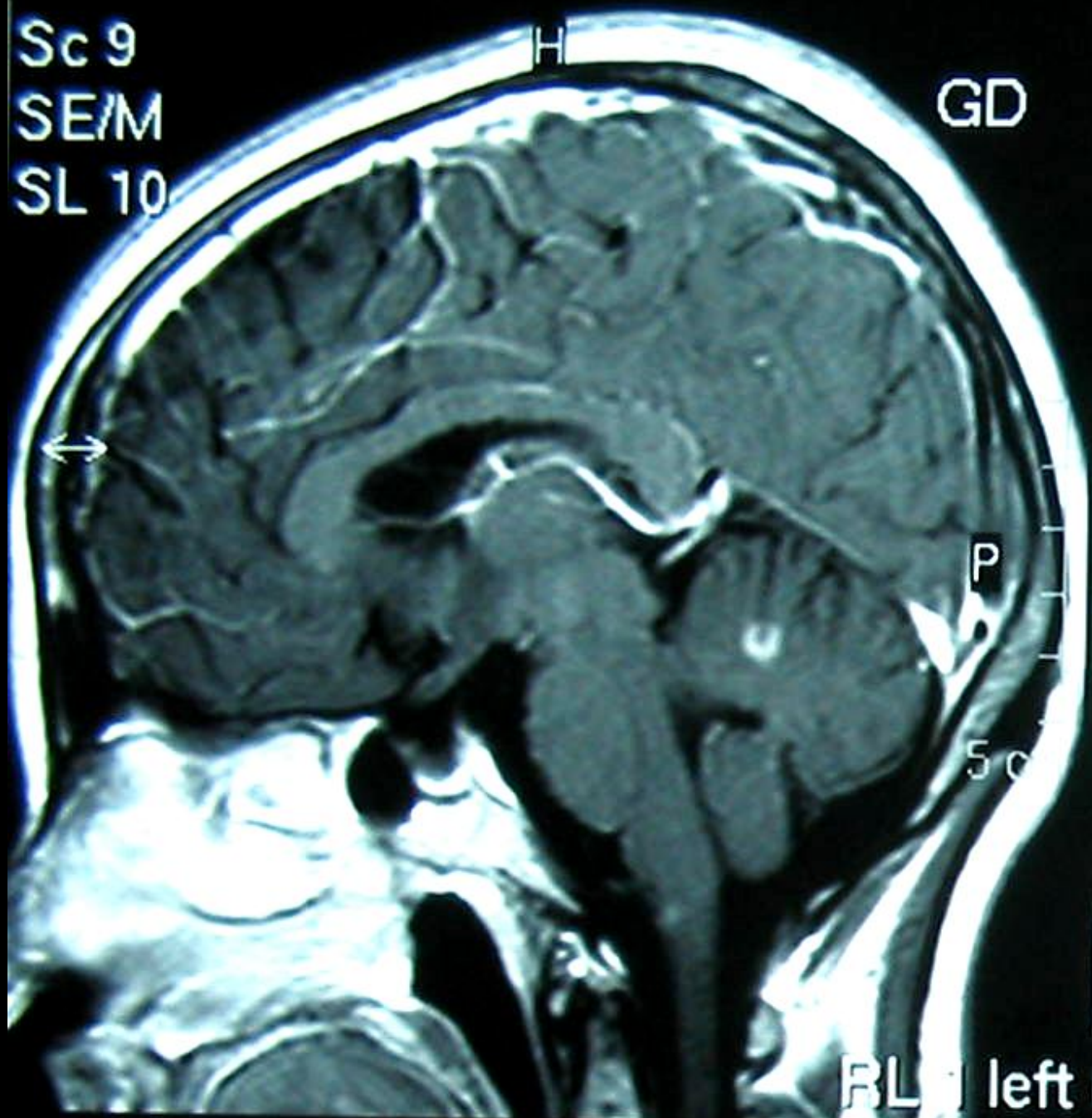
GD



P

50

RL left



Sc 9
SE/M
SL 14

H

GD

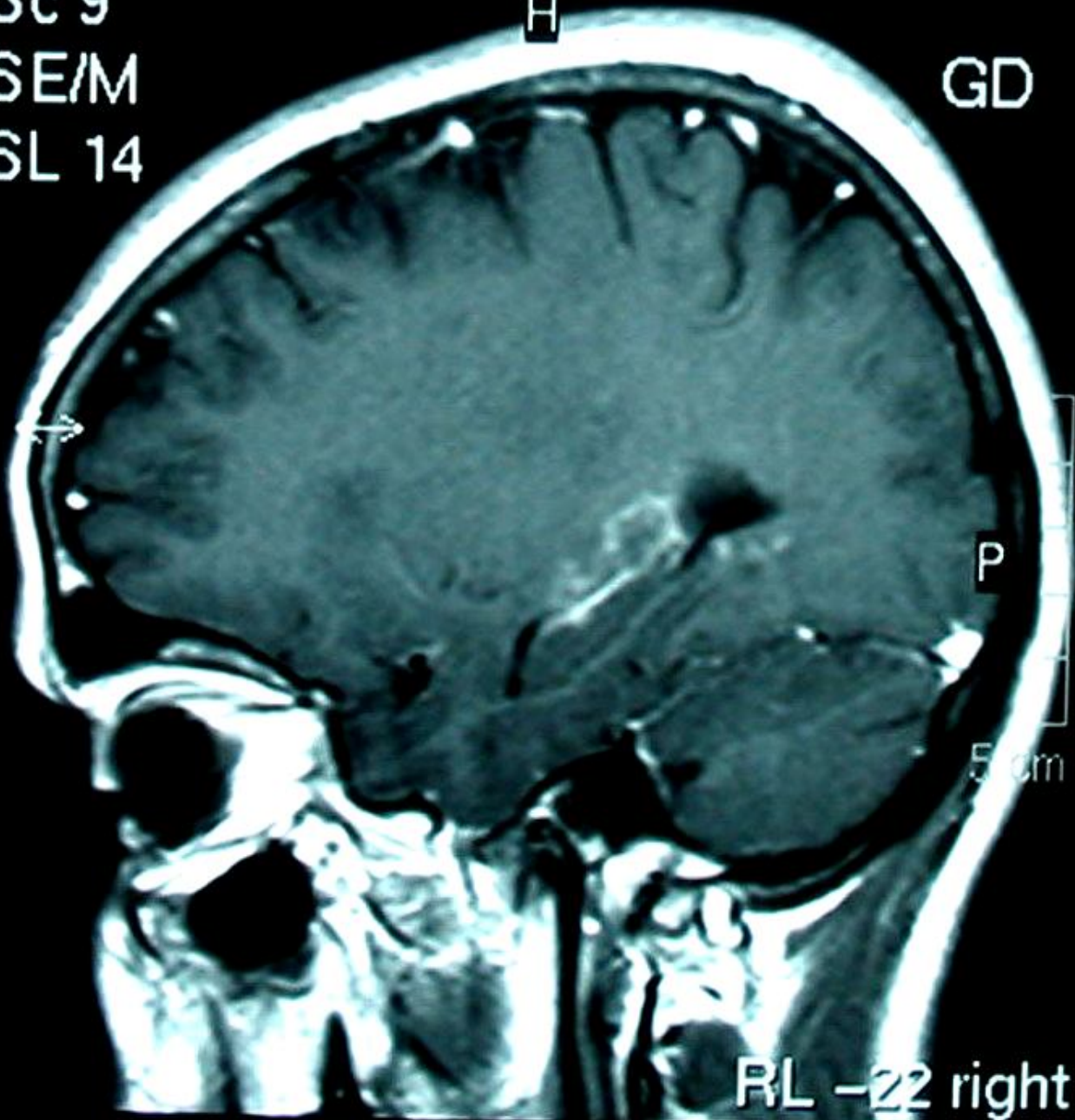
S S S S



P

5 cm

RL -22 right

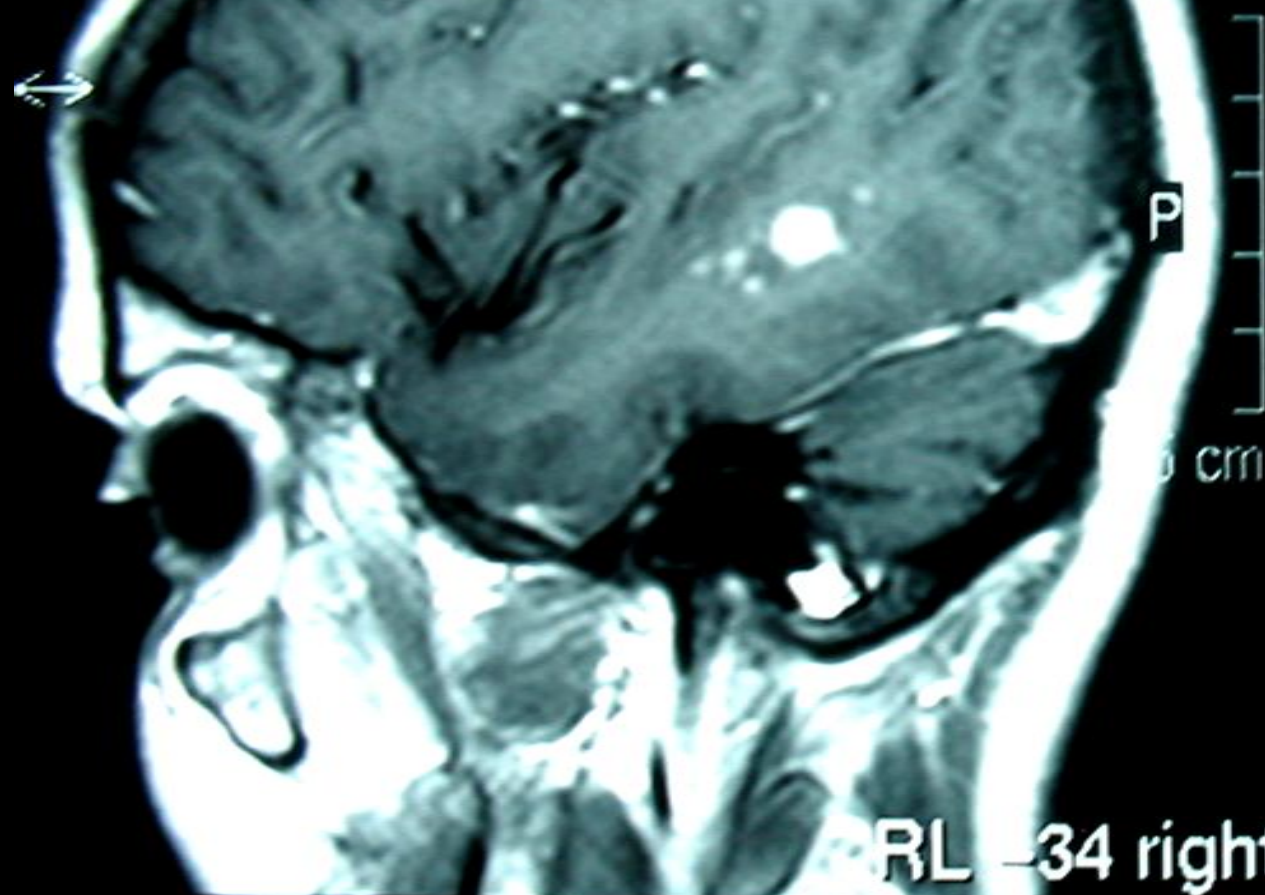


ic 9
E/M
L 16

H

GD

S
S
S



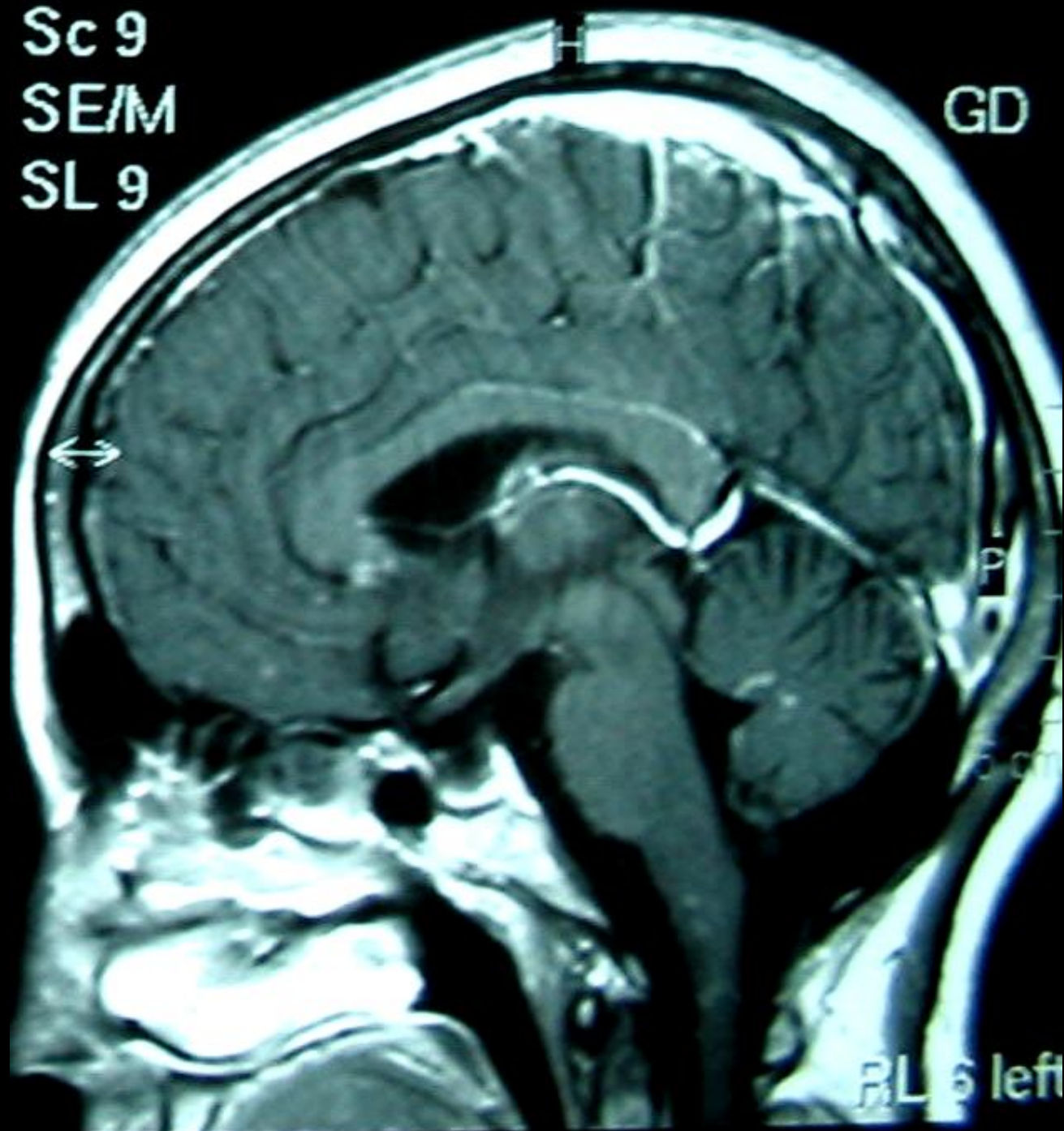
P

5 cm

PRL -34 right

Sc 9
SE/M
SL 9

GD



RL 6 left



17472
4
11
I2.9

AI

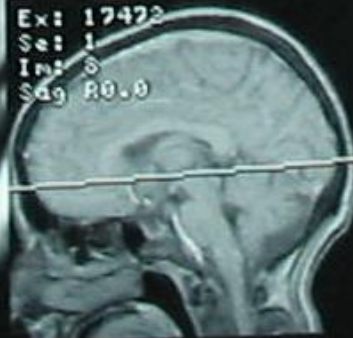
MIC Tehran University
ZAREEI TAHEREH
F 28 1384/1/14-AM

03 Apr 2005

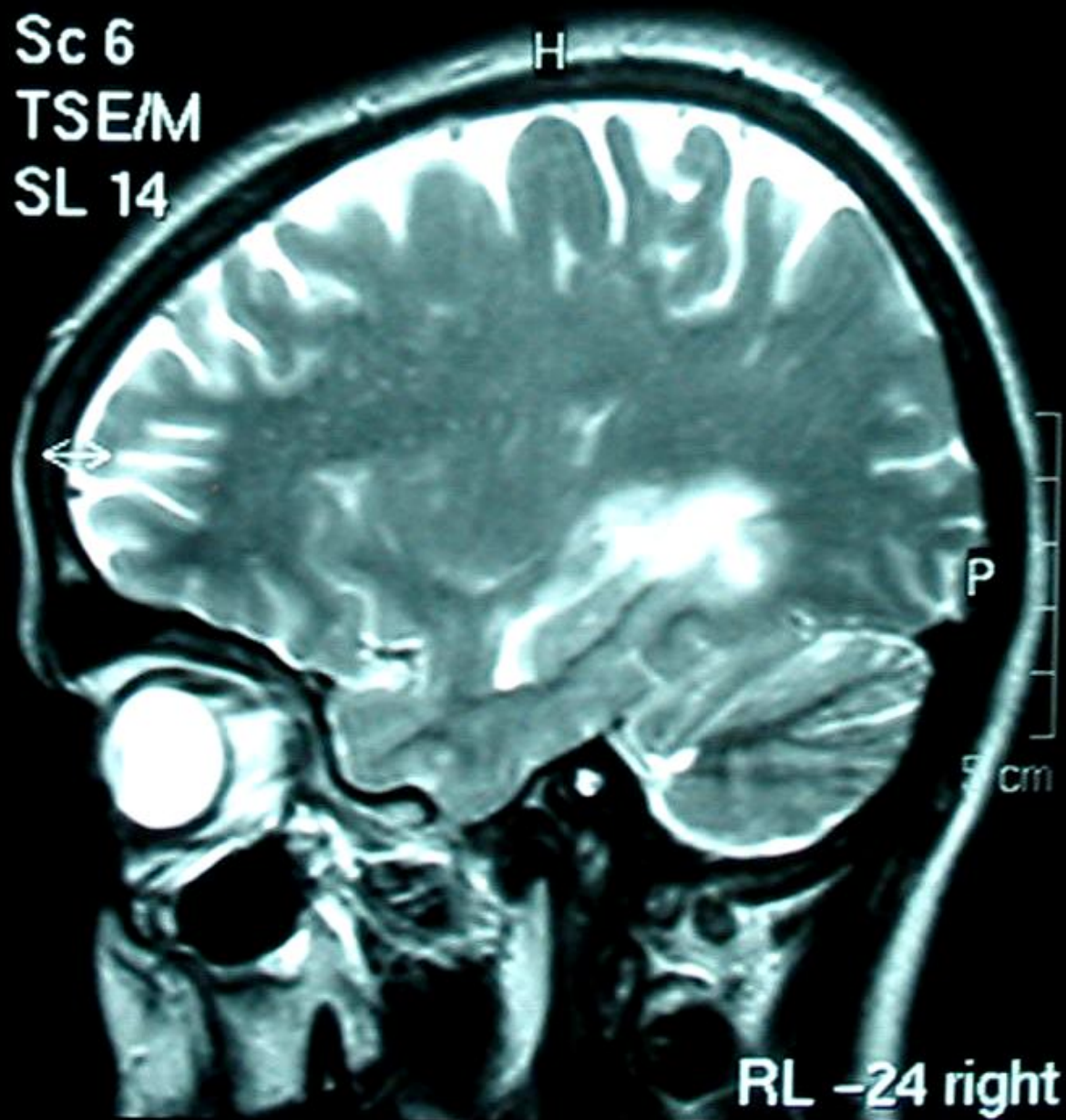
flair/90
:11002
:93.5/EF
:1/1 31.2kHz
:2143

.0thk/1.0sp

Ex: 17472
Se: 1
Im: 8
Sag R0.0



Sc 6
TSEM
SL 14

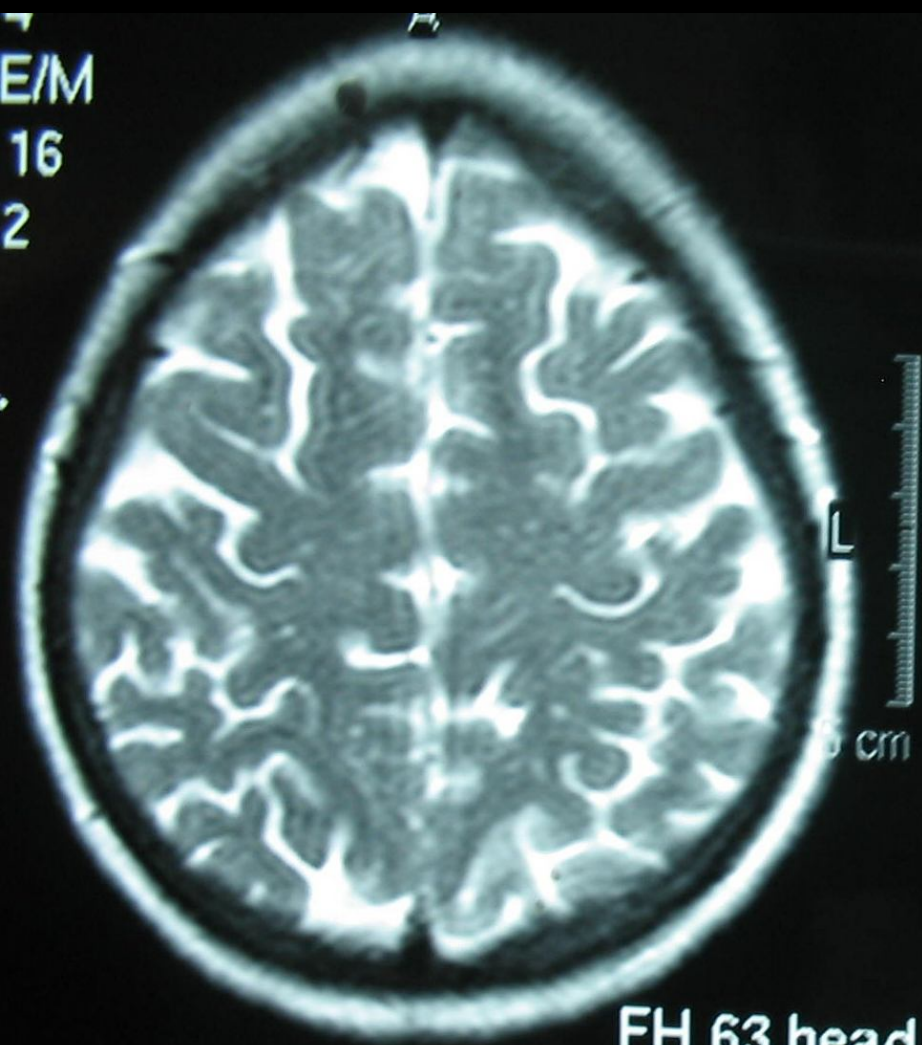


Sc 6

H

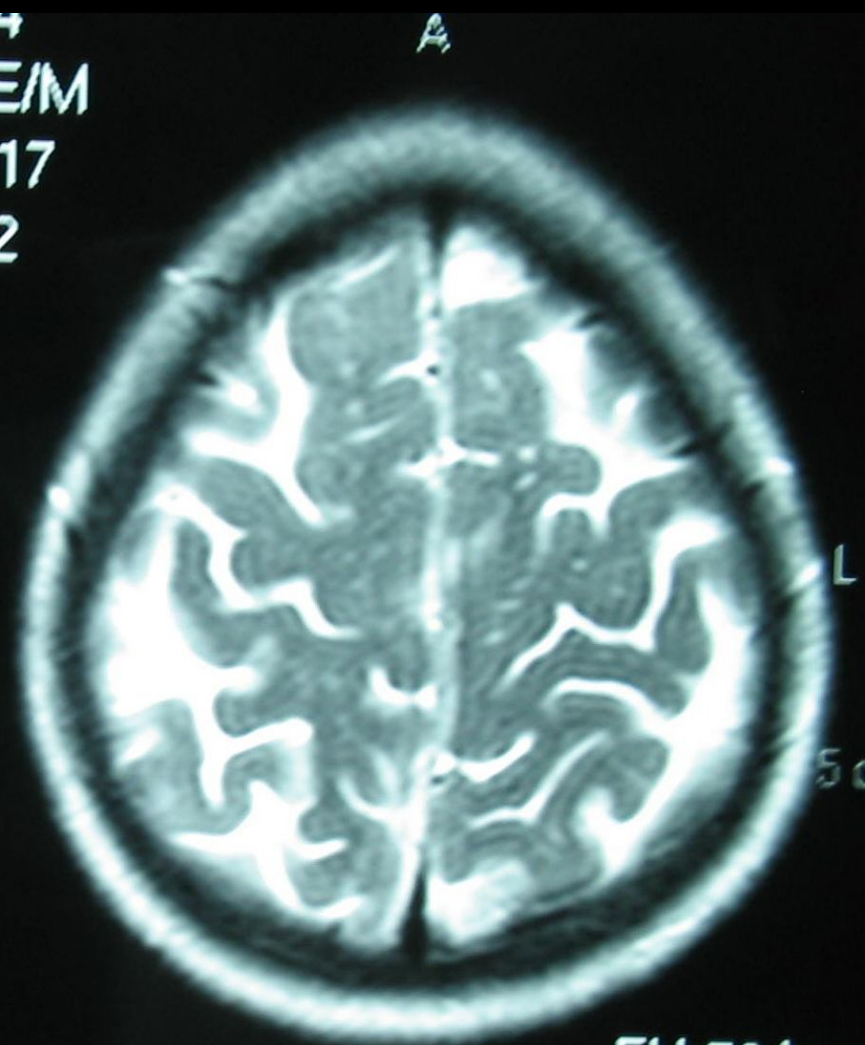
S

E/M
16
2



FH 63 head

SC 4
TSE/M
SL 17
Ec 2



FH 70 head

Sc 6
TSE/M
SL 14

H

P

5



RL -6 right

Sc 6



Sc 6

TSE/M

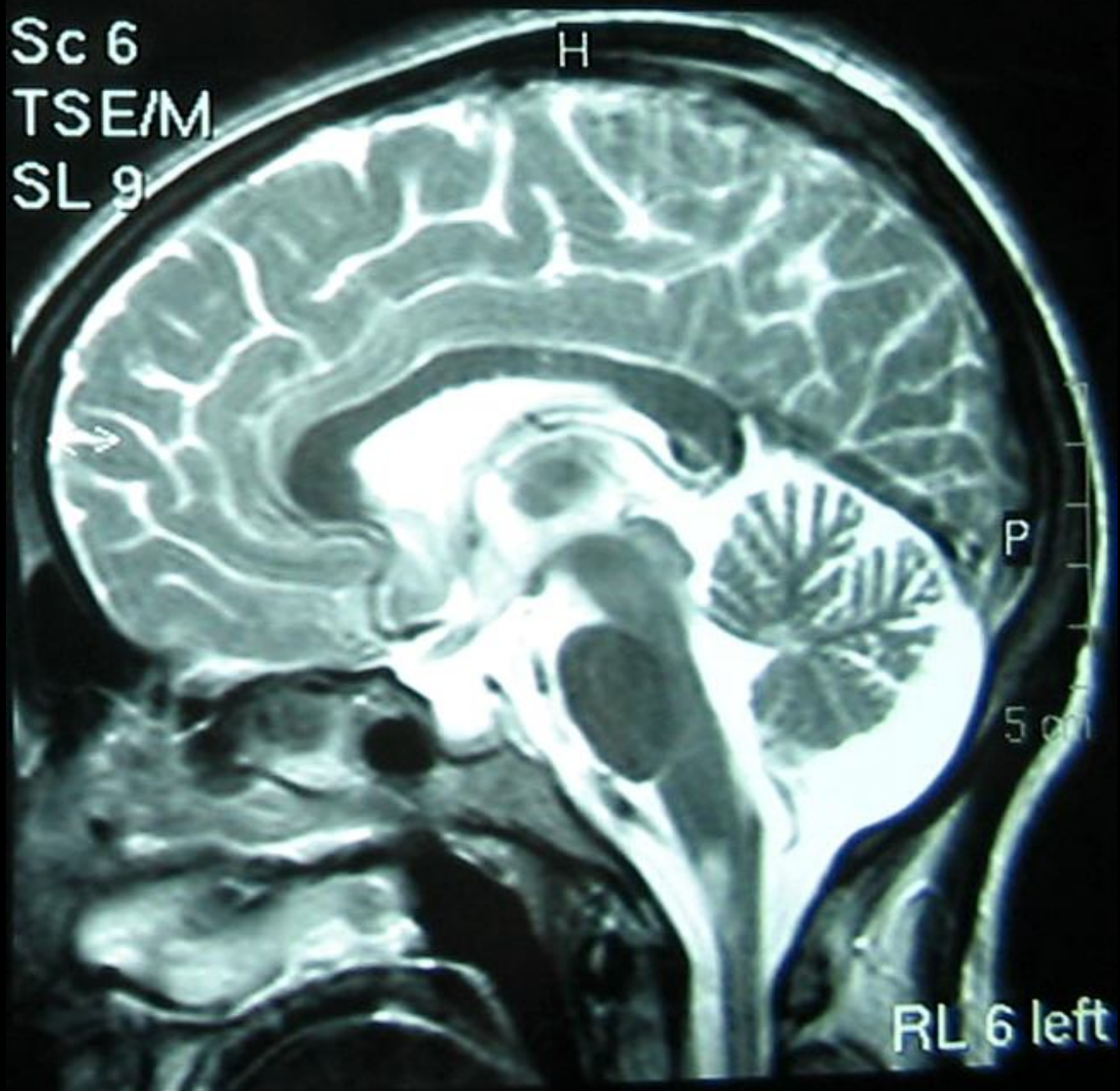
SL 9

H

P

5 cm

RL 6 left



CASE 6

A DEFINITE CASE OF MS WITH A LARGE RING ENHANCING LESION

*Department of Neurology, Loghman
Hospital, Shahid Beheshti University of
Medicine, Tehran, Iran*

CLINICAL AND PARACLINICAL FINDINGS

- A 23 YEARS OLD FEMALE WITH KNOWN HISTORY OF DEFINITE MS DEVELOPED WITH RECURRENT ATTACKS MOTOR, SENSORY AND VISUAL BLURRING.
- MULTIPLE NEUROLOGIC DEFICITS IN N/E
- ABNORMAL TRIPLE EVOKED AND POSITIVE OCB IN CSF

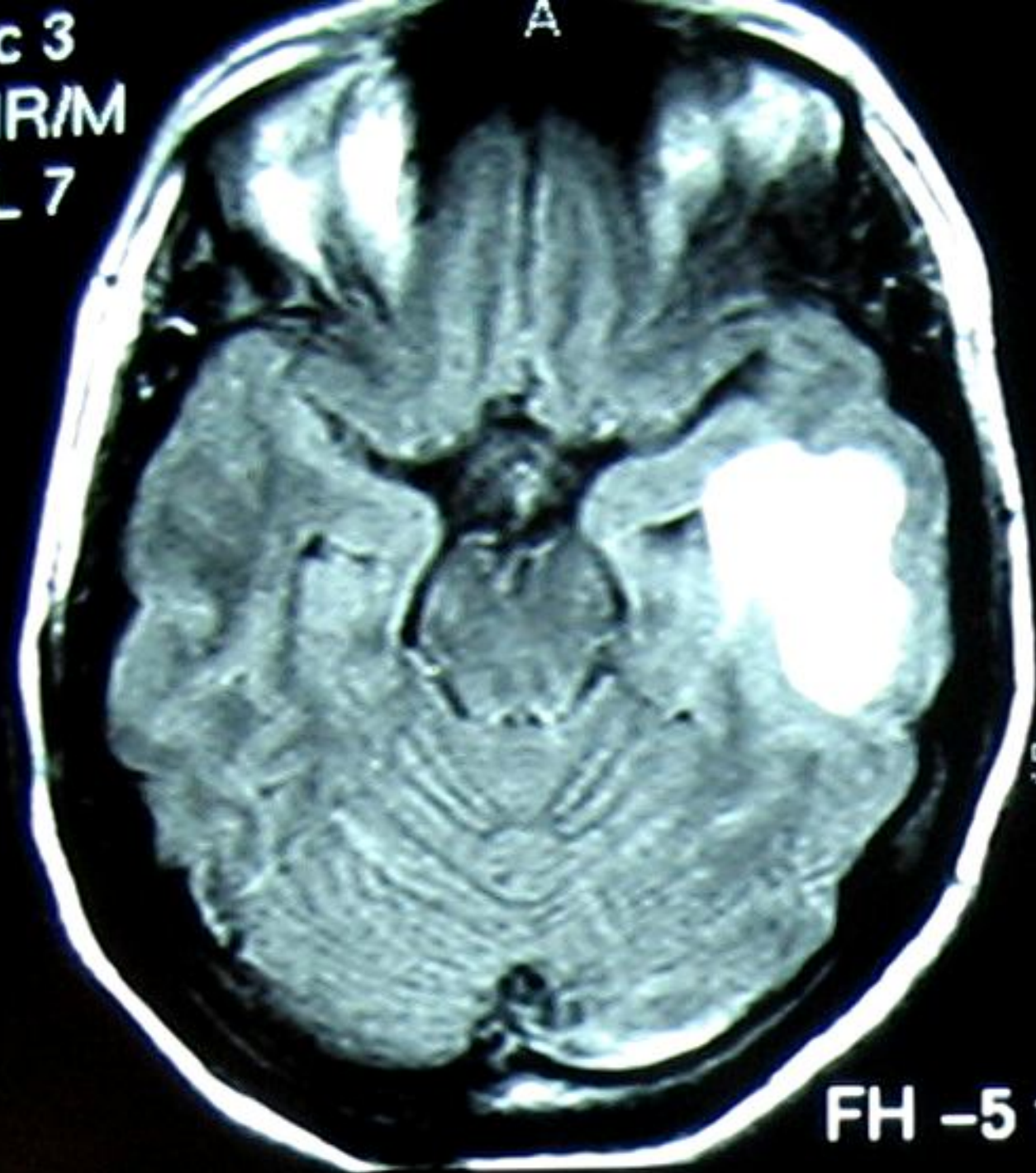
MRI FINDINGS

- **MULTIPLE T2W HYPERSIGNAL LESION IN BRAIN**
- **A LARGE WELL DEFINED RING ENHANCING LESION IN LEFT TEMPORAL LOBE THAT IS HYPOSIGNAL IN T1W AND HYPERSIGNAL IN T2W**



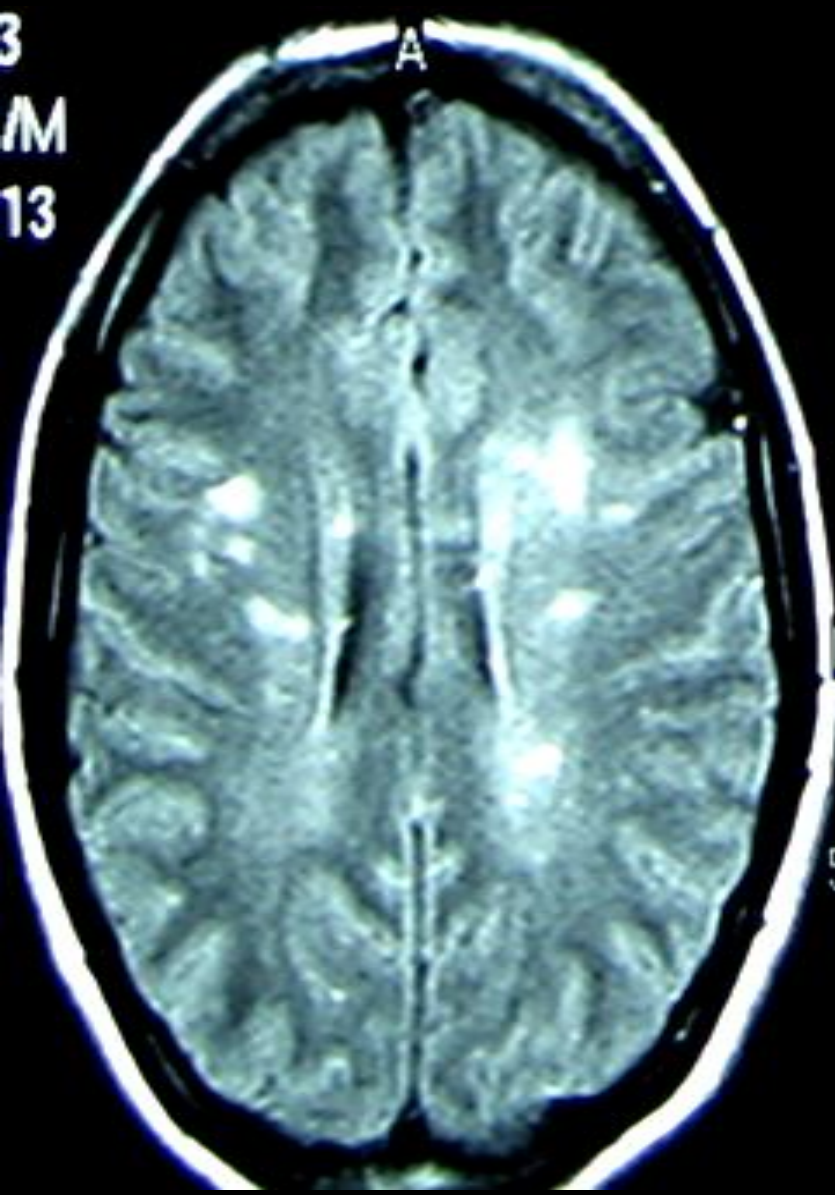
c 3
IR/M
L 7

A

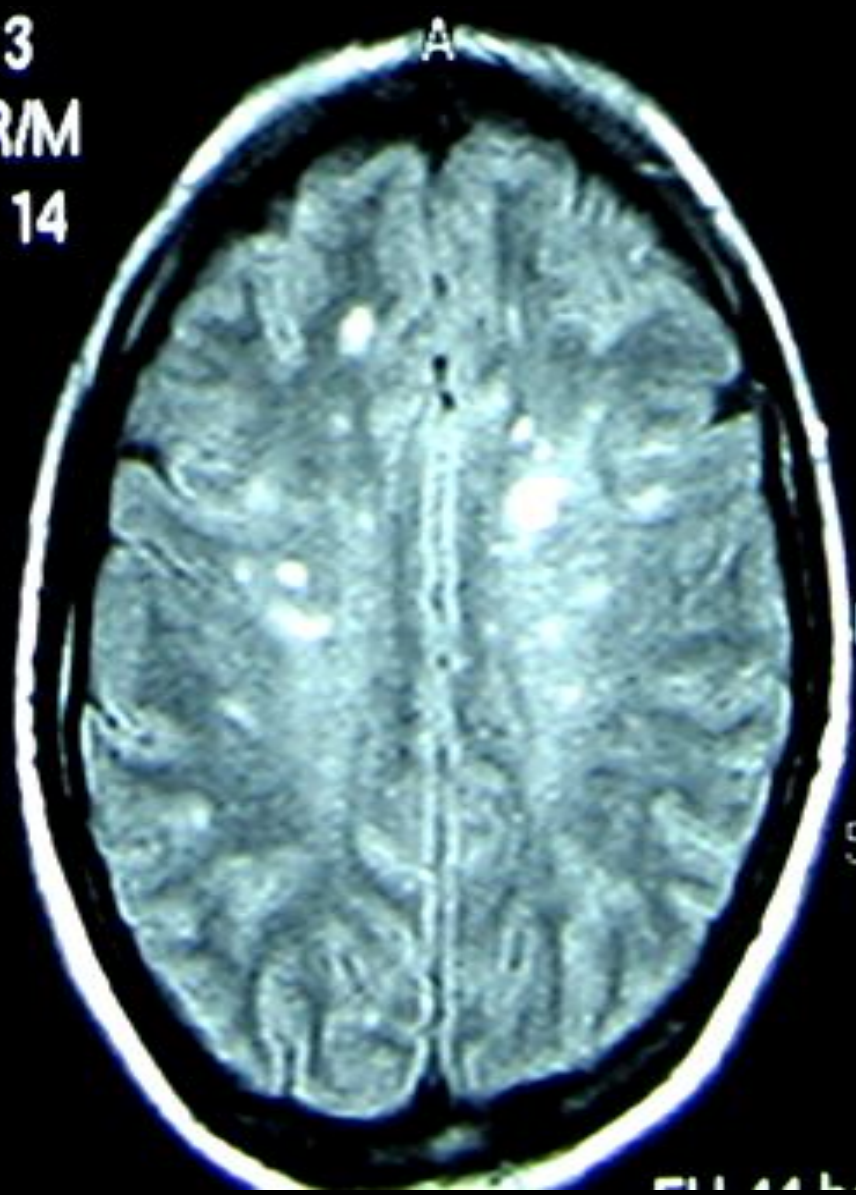


FH -5

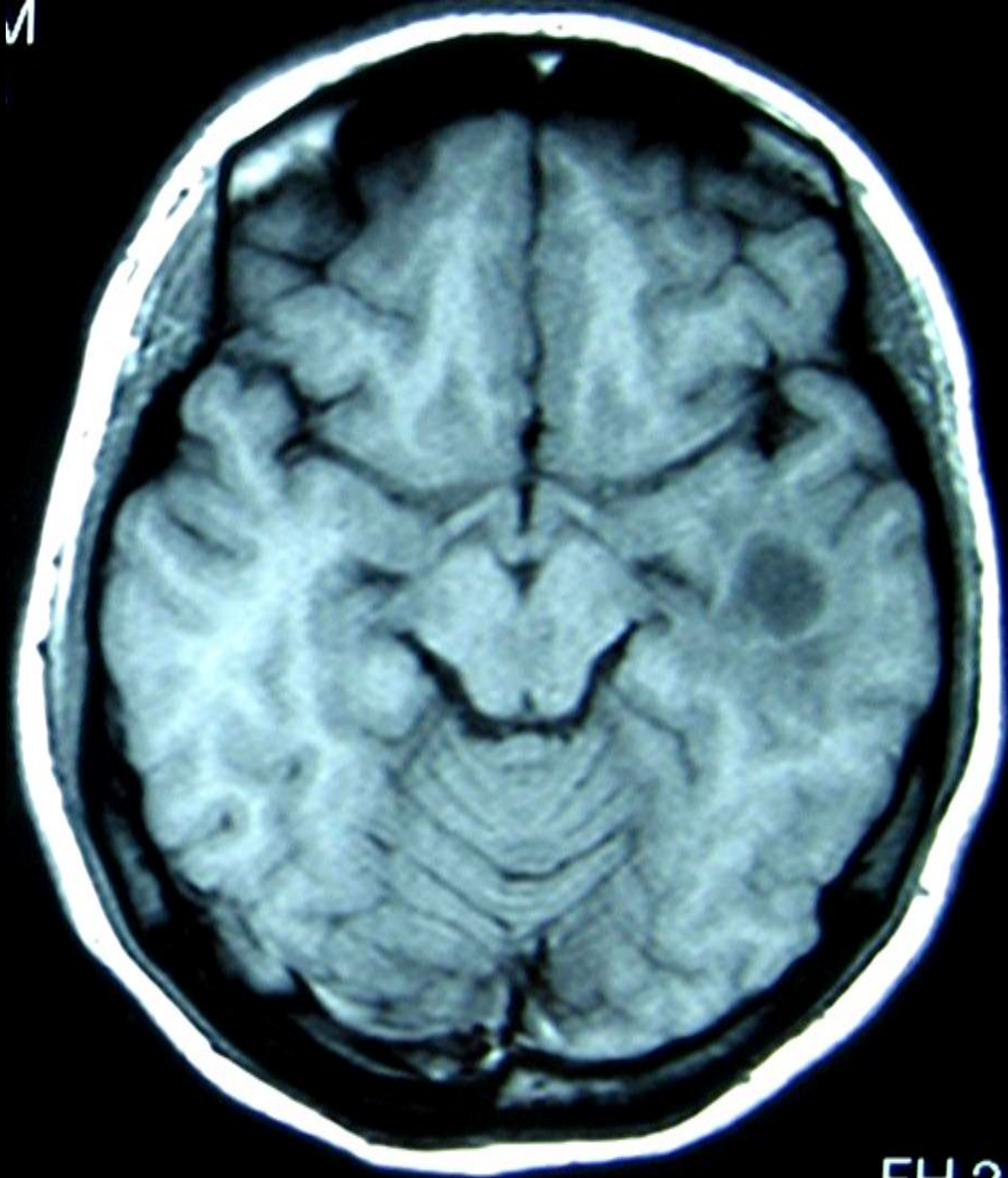
3
/M
13



Sc 3
TIRM
SL 14



PL 14



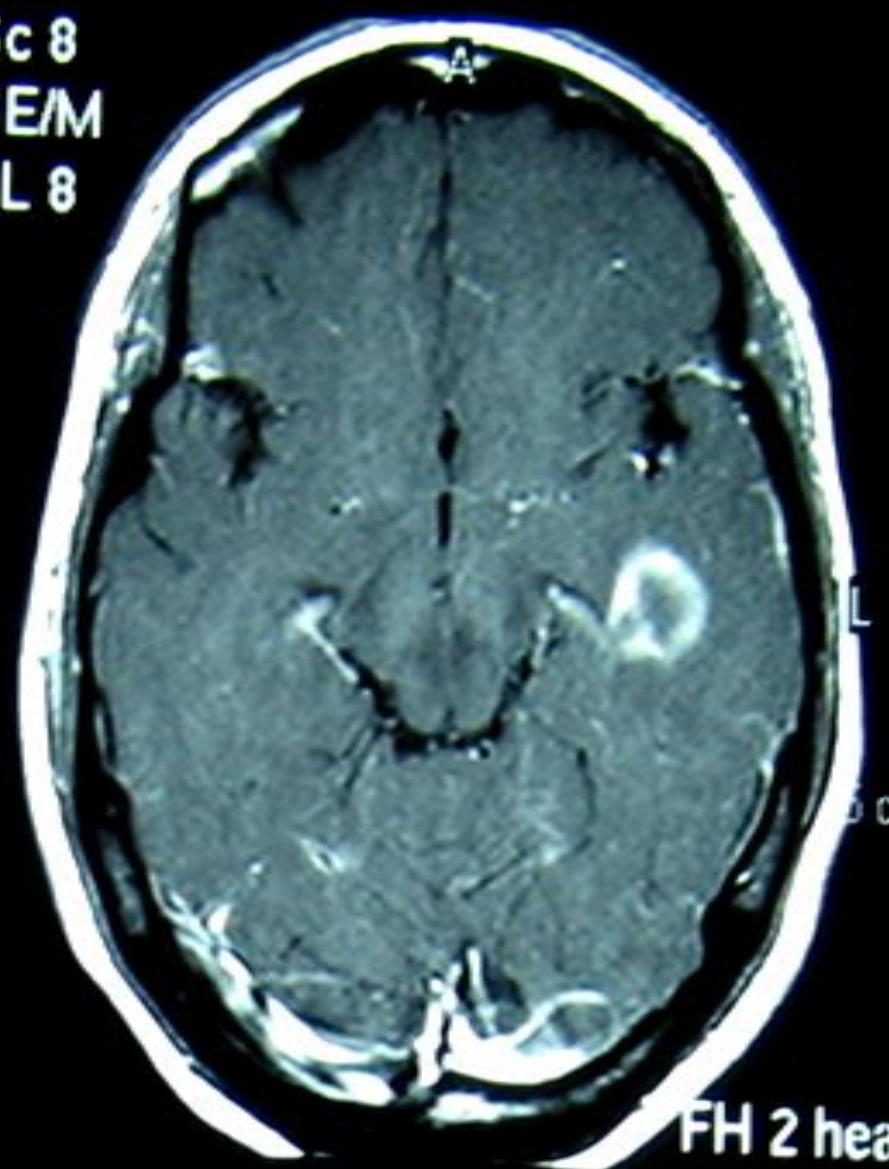
FL 2

Sc 8
SEM
SL 7



FH -5 feet

Sc 8
SEM
SL 8



FH 2 head

Sc 6
SE/M
SL 28



AP 10 post

CASE 7

PATIENT WITH POSITIVE ANTIPHOSPHOLIPID ANTIBODY AND MULTIPLE LESION IN MRI

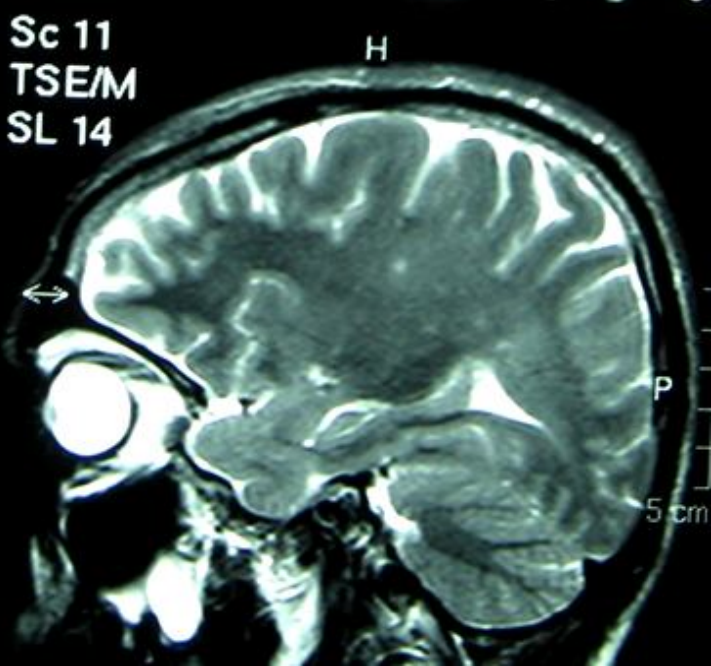
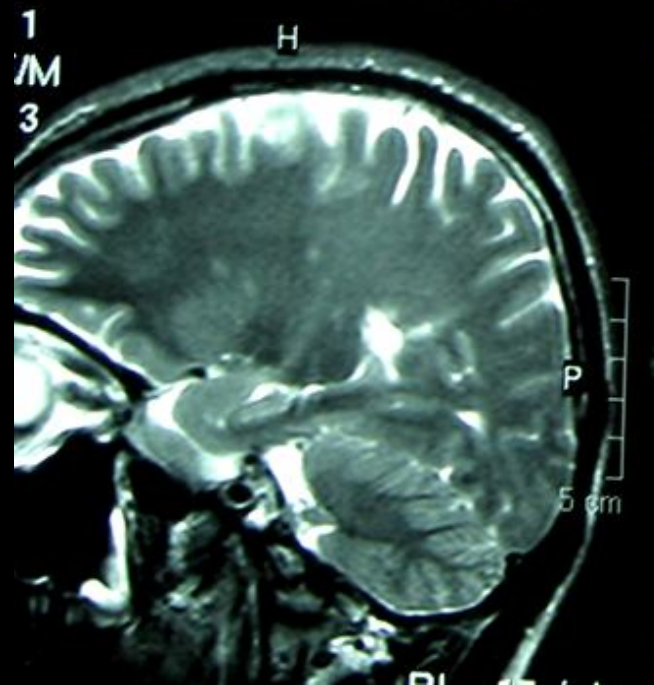
*Department of Neurology, Loghman
Hospital, Shahid Beheshti University of
Medicine, Tehran, Iran*

CLINICAL AND PARACLINICAL FINDINGS

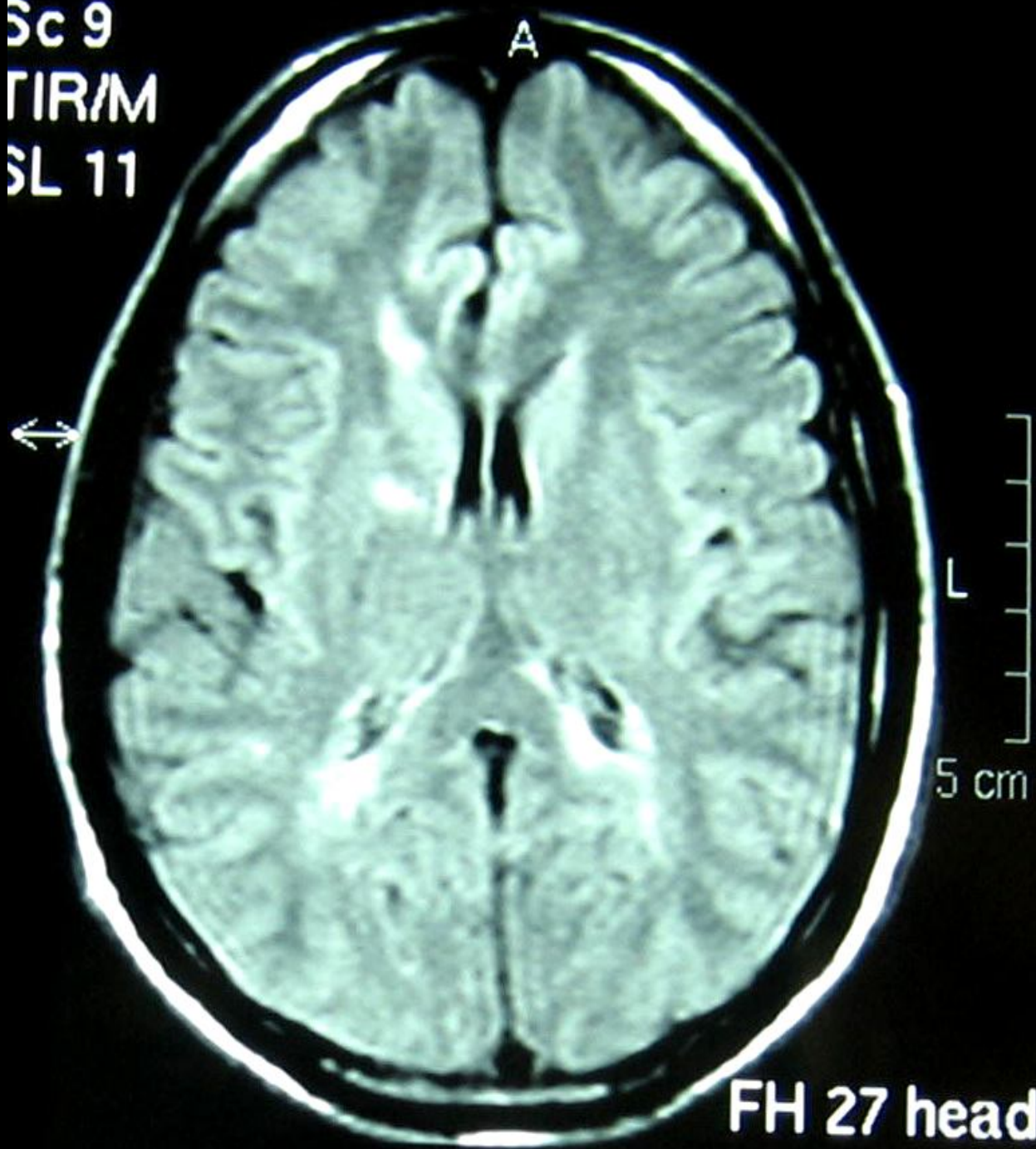
- A 46-YEAR OLD MAN WITH HISTORY OF TINGLING ,NUMBNESS, FREQUENCY , URGE INCONTINENCE AND SUDDEN FALLING IN FAST WALKING SINCE 8 MONTHS PTA.
- IN N/E: SPASTIC QUADRIPARESIA ,ABNORMAL PATHOLOGIC REFLEX IN FOUR LIMBS,ABNORMAL DEEP SENSATION IN FOUR LIMBS AND SENSORY LEVEL AT T4
- ANORMAL VEP,POSITIVE OCB AND POSITIVE ANTIPHOSPHOLIPID ANTIBODY (FOUR TIMES THAN NORMAL)

MRI FINDINGS

- **MULTIPLE T2W PERIVENTRICULAR AND CORPUS CALLOSAL HYPERSIGNAL FOCI**
- **T2W HYPERSIGNAL LESION AND LOCAL ATROPHY OF CORD IN C3 LEVEL AND ANOTHER T2W HYPERSIGNAL LESION IN T3 LEVEL OF SPINAL CORD**



Sc 9
TIR/M
SL 11



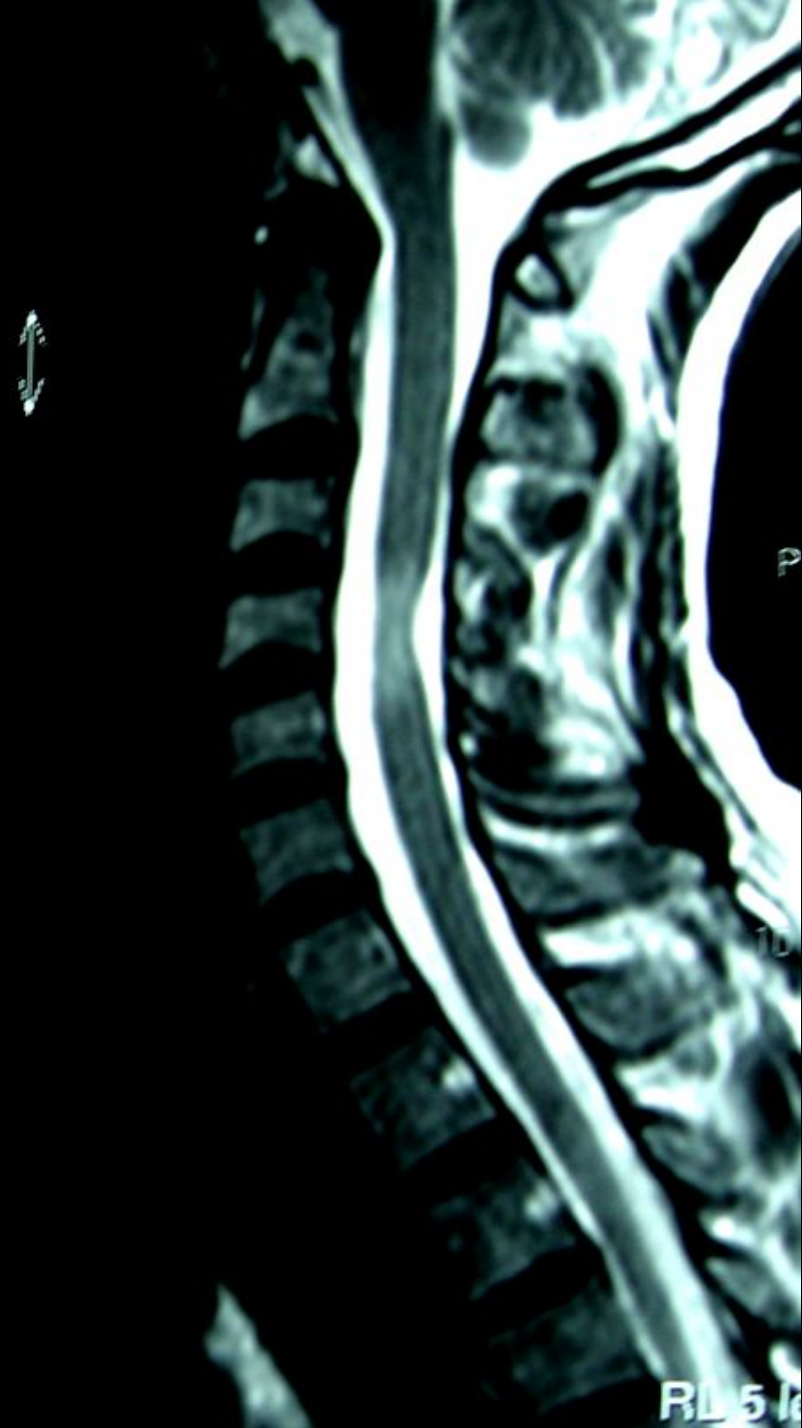
FH 27 head

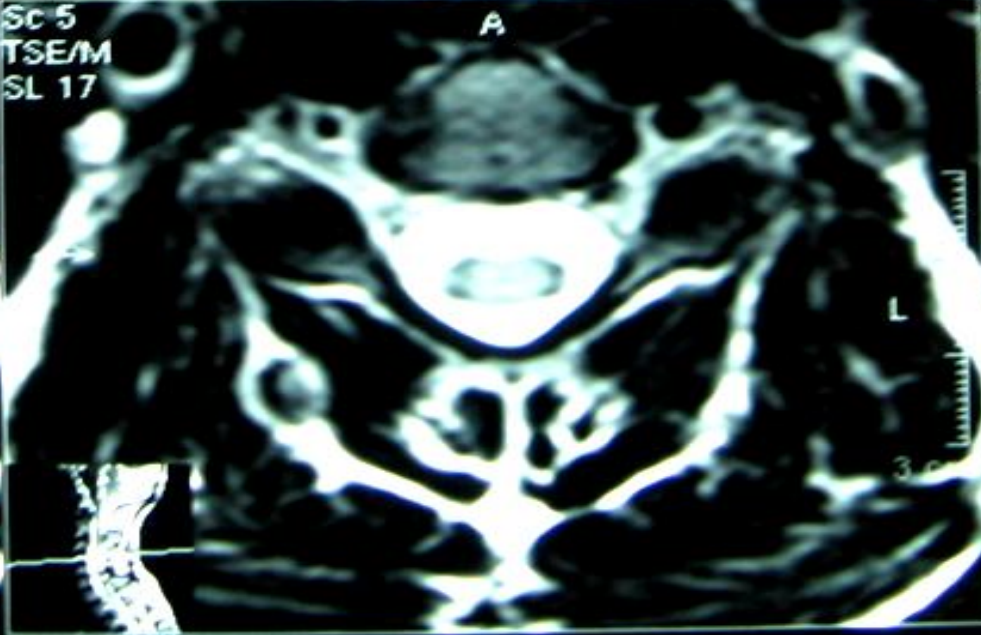
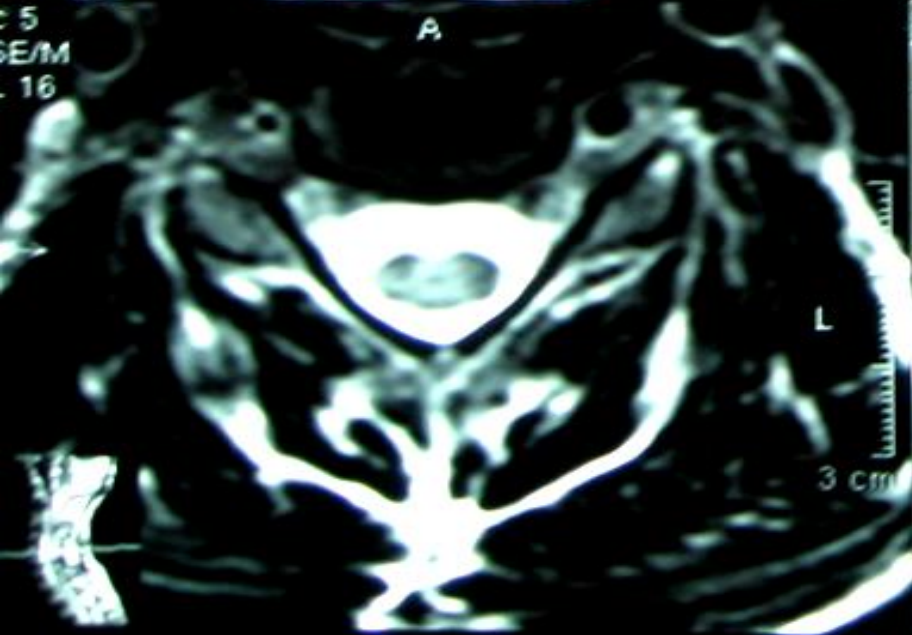
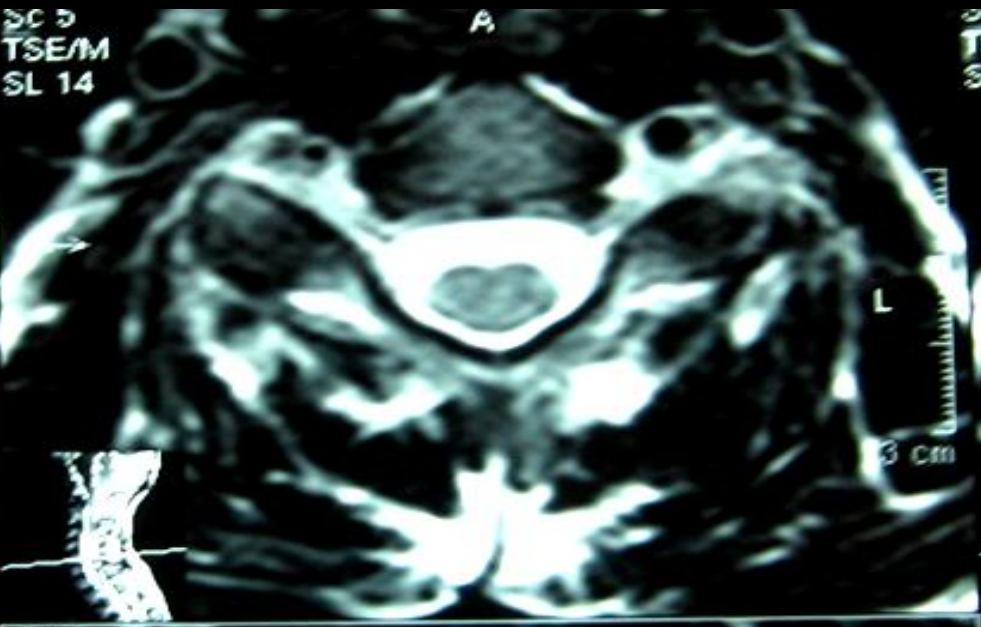
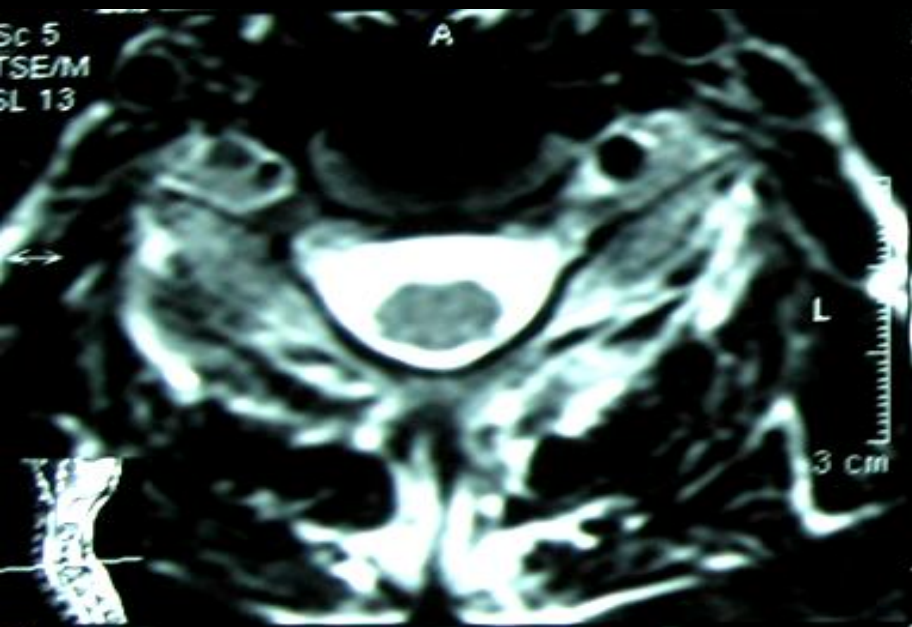
STUDY 1
7/06
59:50 PM
IMA 8 / 12

IF 1.20

I 2500.0
R 9000.0
E 136.0
A 02:06
W 200.0
MND

SP H4
SL
FoV 216
173p 3





CASE 8

A DEFINITE CASE OF MS AND OSSIFICATION OF LIGAMENTUM FLAVUM(OLF)

*Department of Neurology, Loghman
Hospital, Shahid Beheshti University of
Medicine, Tehran, Iran*

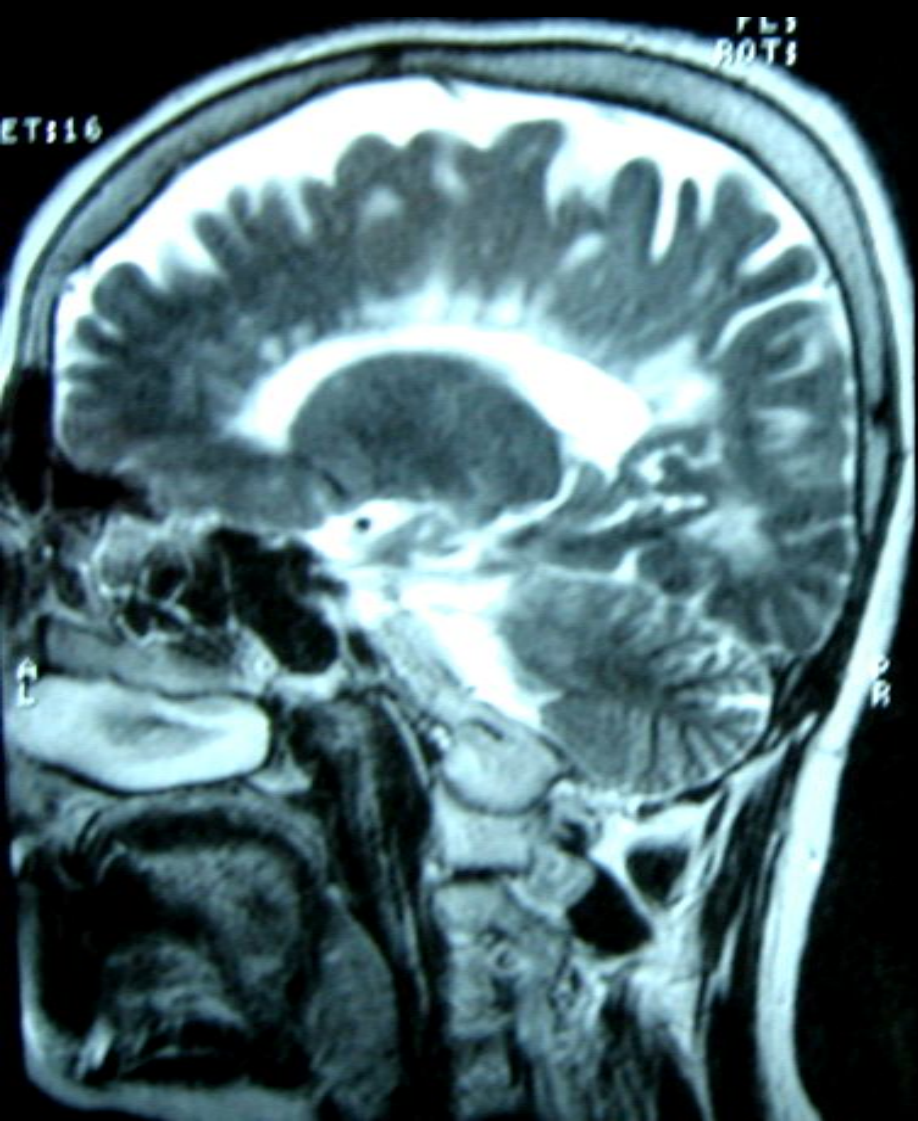
CLINICAL AND PARACLINICAL FINDINGS

- A 44-year old woman with recurrent attacks of weakness and paresthesia in limbs and history of vertigo and uncontrolled gait and blurred vision from 18 year ago and exacerbation of weakness and stiffness of lower limbs since 3-4 years PTA.
- In N/E : spastic paraparesia and inability to walking without assistance and bilateral Achilles clonus and Babinski's sign and a sensory level in T10.
- Abnormal VEP and positive OCB

MRI FINDINGS

- **DIFFUSE WHITE MATTER LESION IN BRAIN (CONFLUENT WHITE MATTER LESION)**
- **OSSIFICATION OF LIGAMENTUM FLAVUM(OLF) IN T10 LEVEL OF THORACIC SPINAL CORD**





.5T SYS#GEMSOV
16

ASL

DR ATHARI MRI CE
REZAYI
F 44 2E

2.2

29 Dec
05:47:0
Mag =
FL:
ROT:

lair/30
9002
:161/EF
:1/1 15.6MHz
:2200
AD
IV:24x24
.0thk/0.2sp





P

10 cm

RL 14



CASE 9

MULTIPLE SCLEROSIS AND NONCOMMUNICATING SYRINGOMYELIA

*Department of Neurology, Loghman
Hospital, Shahid Beheshti University of
Medicine, Tehran, Iran*

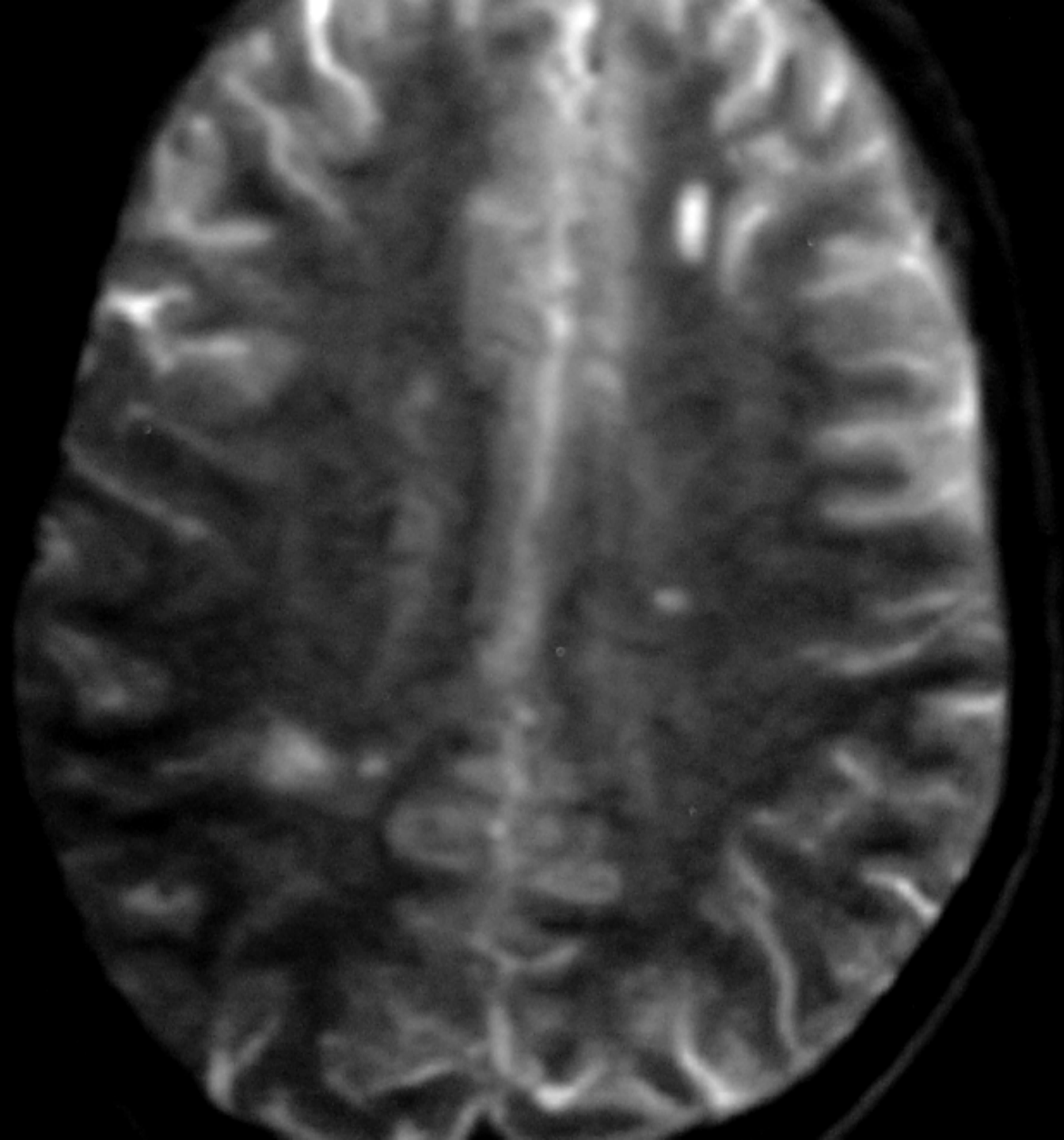


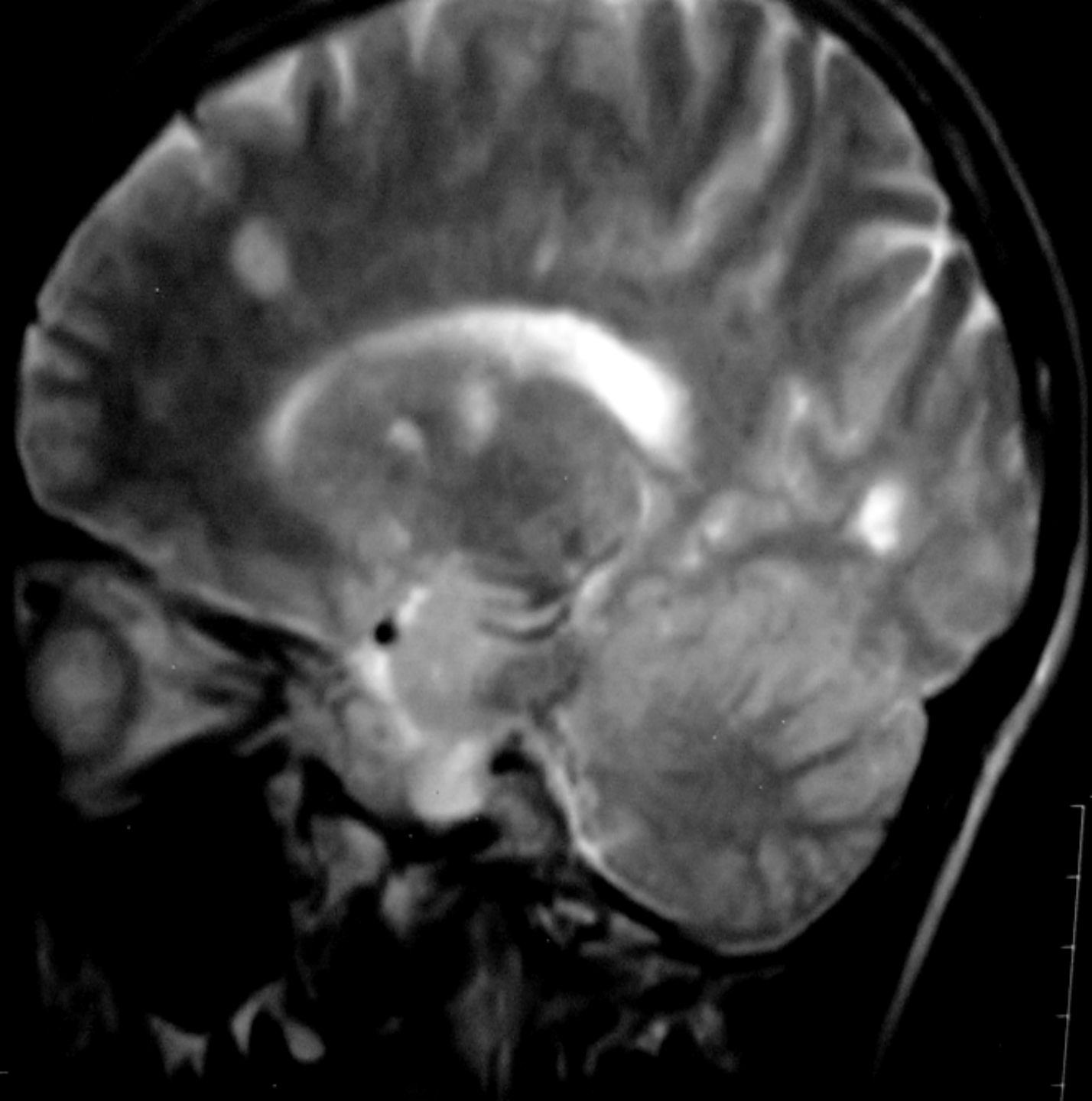
CLINICAL AND PARACLINICAL FINDINGS

- A 31 years old female with history of an attack of paraparesia and blurred vision in right eye in 8-years ago . After one year she had other s attack as having vertigo, difficulty in walking, urinary symptoms and blurred vision in her left eye that after clinical, paraclinical and MR imaging study, she was diagnosed to have MS .Since 8- years ago the patient has 4 attacks of paraparesia . In one of them, 3 months before , she had quadriparesia with preference in lower limbs and pain and weakness in left upper arm.
- Prior to 8-years ago she have not any clinical manifestations
- She comes to our center with weakness in both lower limbs weakness (3/5) and spastic quaderiparesia and there is not any sensory level. She did not have any atrophy in hand muscles or any decreasing in dermatomal sensation. She did not have asymmetric reflex or atrophy in biceps, triceps and brachioradialis muscles.
- Abnormal VEP in both eyes and positive OCB in CSF and normal EMG-NCV study

MRI FINDINGS

- In brain MRI;there are T2W hypersignal lesions
- In cervical MRI and in T2W image, there is a hypersignal area in C3 to C6 that is hyposignal in T1W, as a longitudinal cystic cavity . In T1W MRI, there are not inflammations and usual gliosis or enhancement nearby cavity after contrast injection







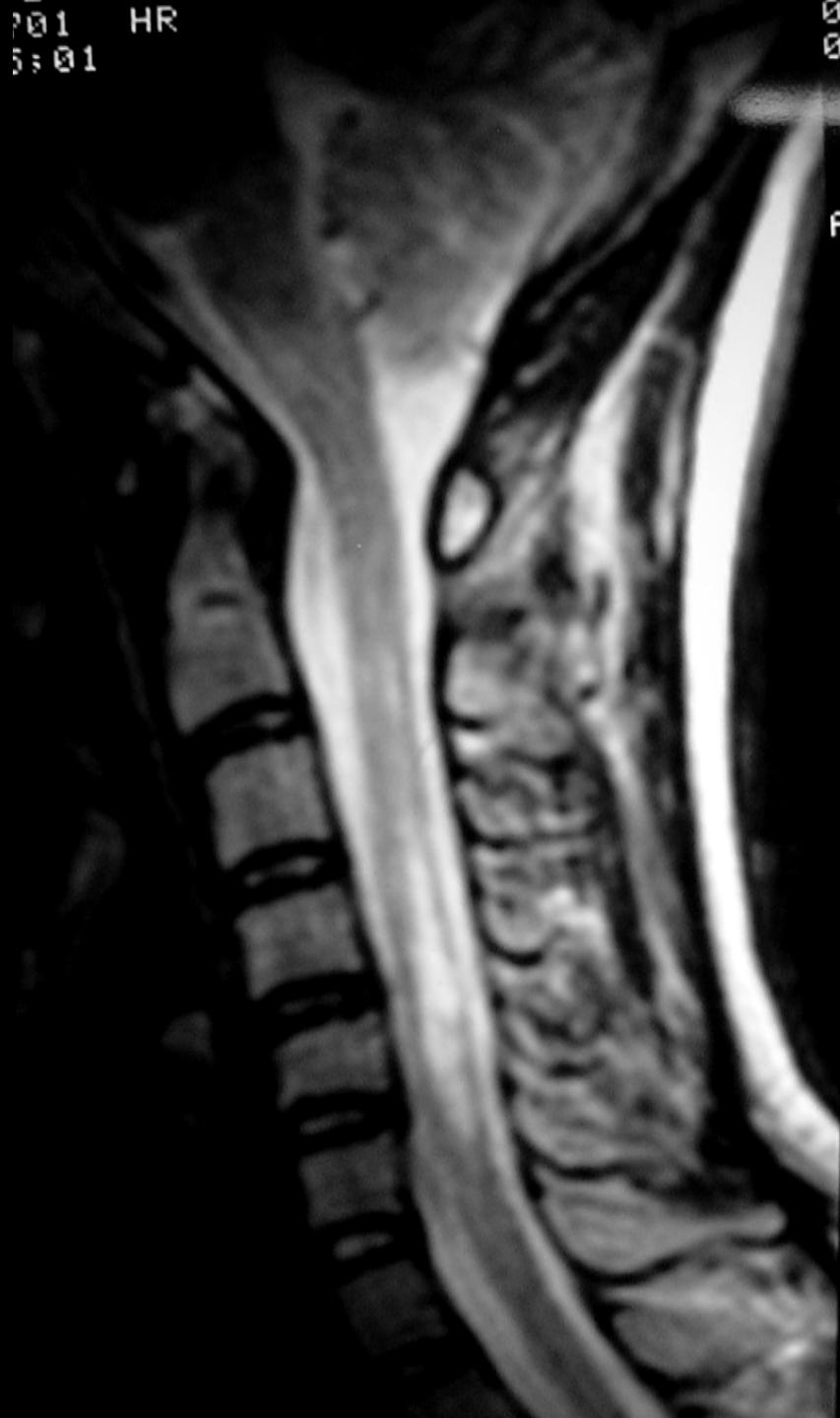
Upper limit of downward displacement of cerebellar tonsil

Decade of life	mm
First	6
Second or third	5
Fourth to eighth	4
Ninth	3

701 HR
5:01

00:
02

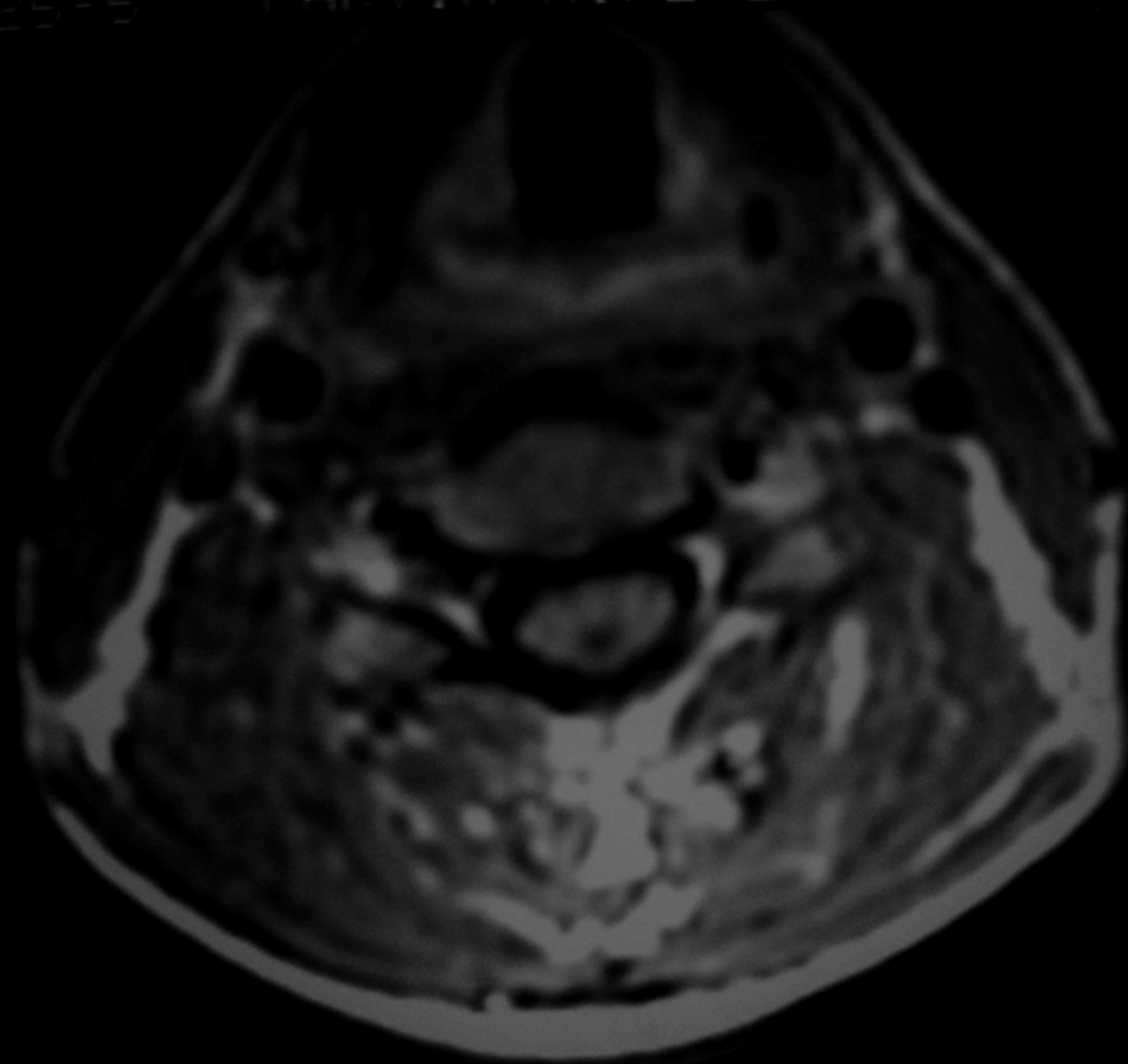
R

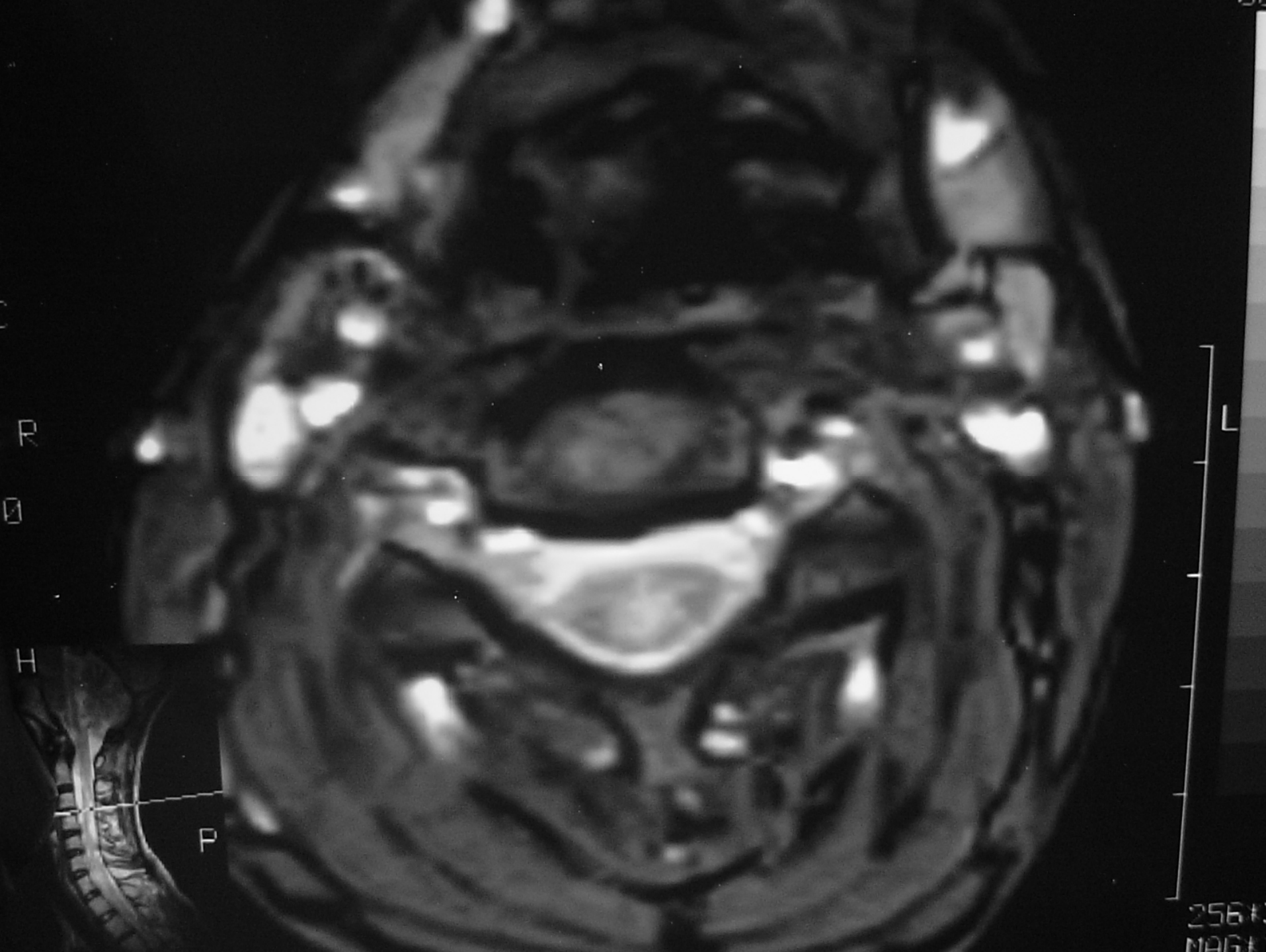


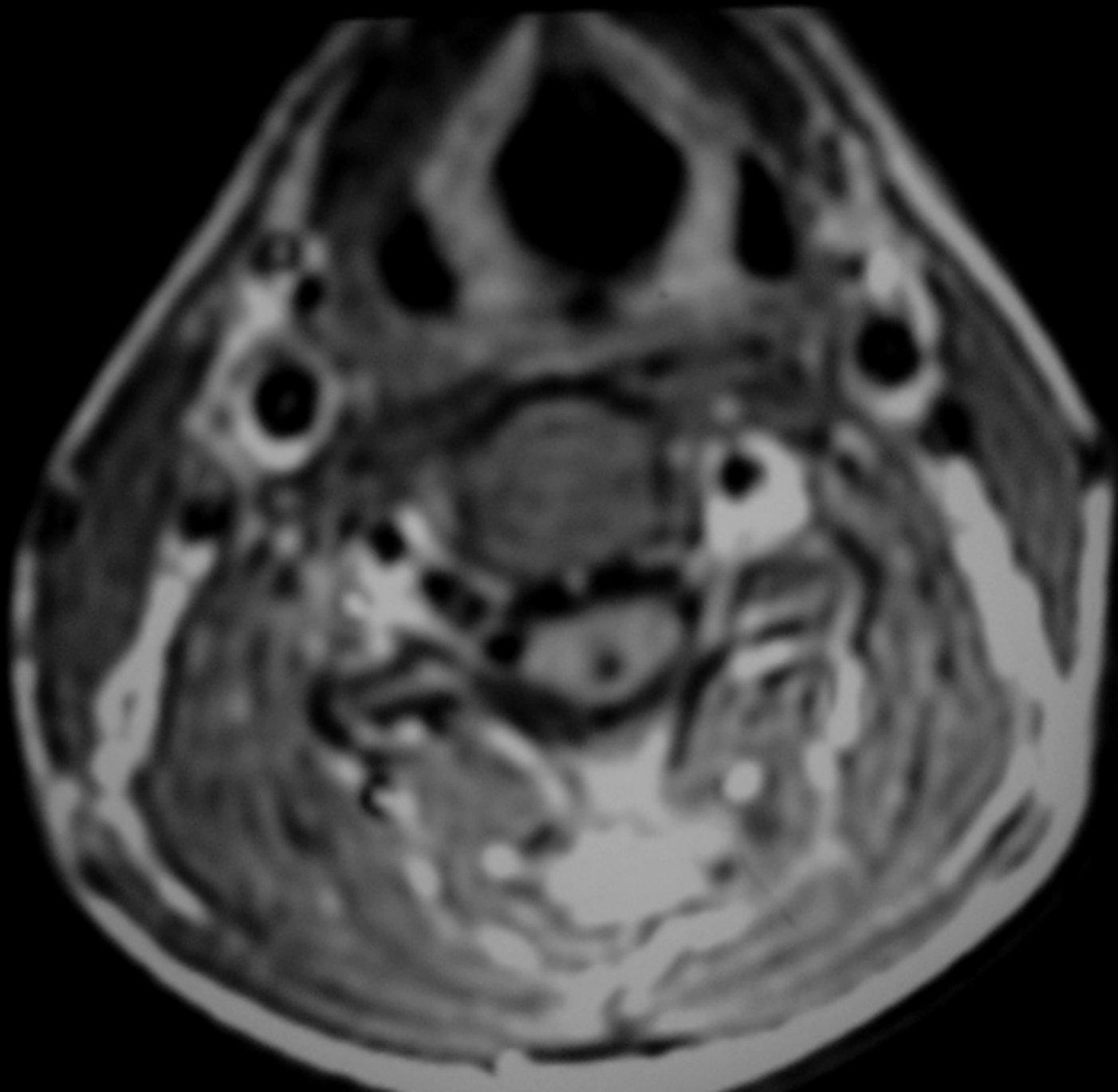
11.25-5

PHARYNGO-ORBITAL

11







CASE 10

MULTIPLE SCLEROSIS AND CAVERNOUS HEMANGIOMA

*Department of Neurology, Loghman
Hospital, Shahid Beheshti University of
Medicine, Tehran, Iran*

CLINICAL AND PARACLINICAL FINDINGS

- A 43-year old man with progressive weakness in both leg since 8-years PTA. Feet paresthesia and urinary frequency and urgency and history of vertigo and imbalance in walking . Blurred vision in both eyes were other clinical attacks. From 1-year PTA he is under treatment with lamotrigine because of recurrent generalized tonic clonic (GTC) seizure.
- In N/E showed left Marcus Gunn, hyperreflexia in four limbs, lower limbs weakness and bilateral Babinski's sign and absence of abdominal reflex. He can not stand and walk without assistance.
- Abnormal VEP and positive OCB

MRI FINDINGS

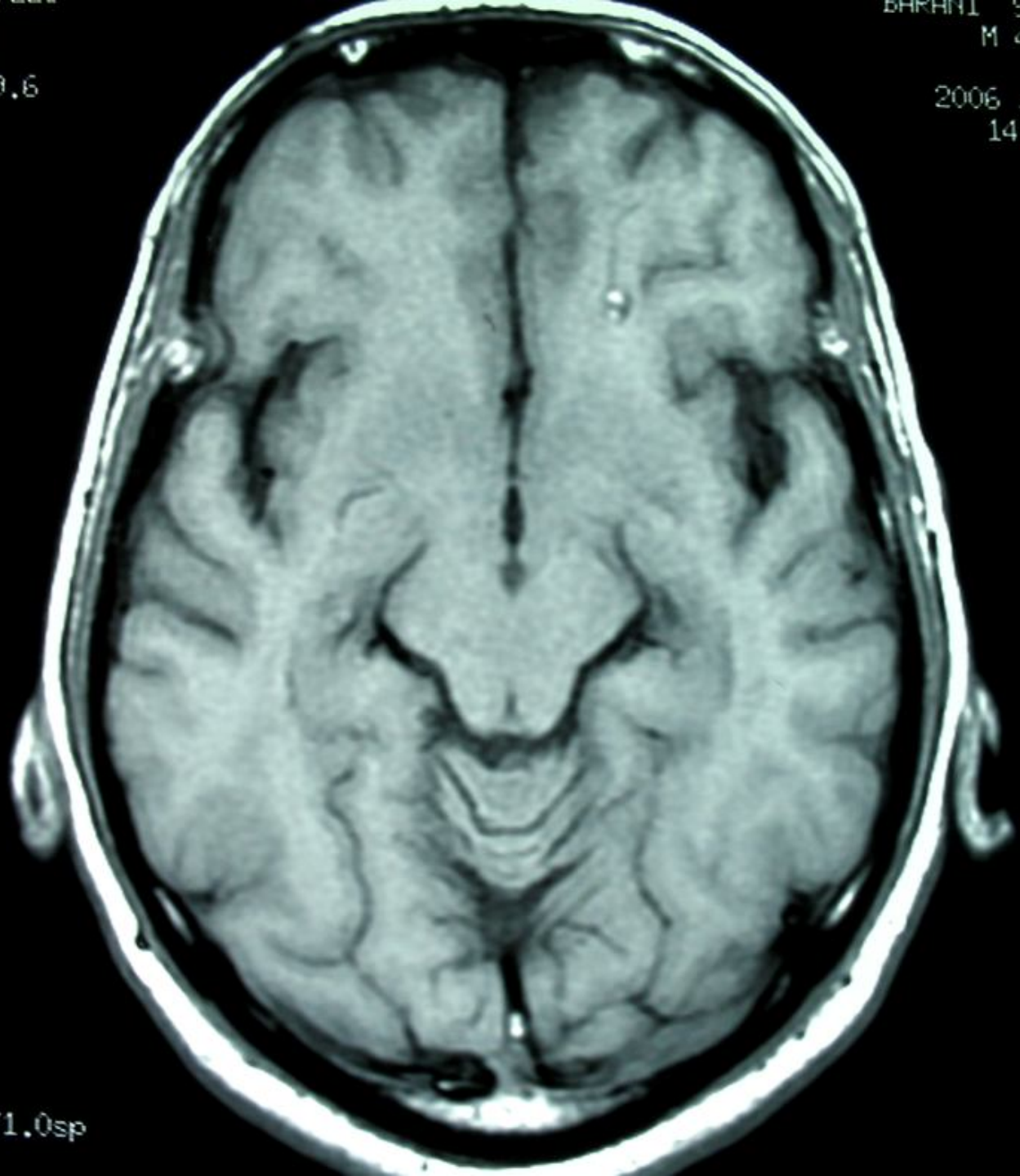
- **Multiple T2W hypersignal lesion in periventricular , centrum semioval and corpus callosal white matter**
- **Multiple cavernous hemangioma in frontoparietal region**



19.6

BHANI SH
M 43

2006 Ja
14:4

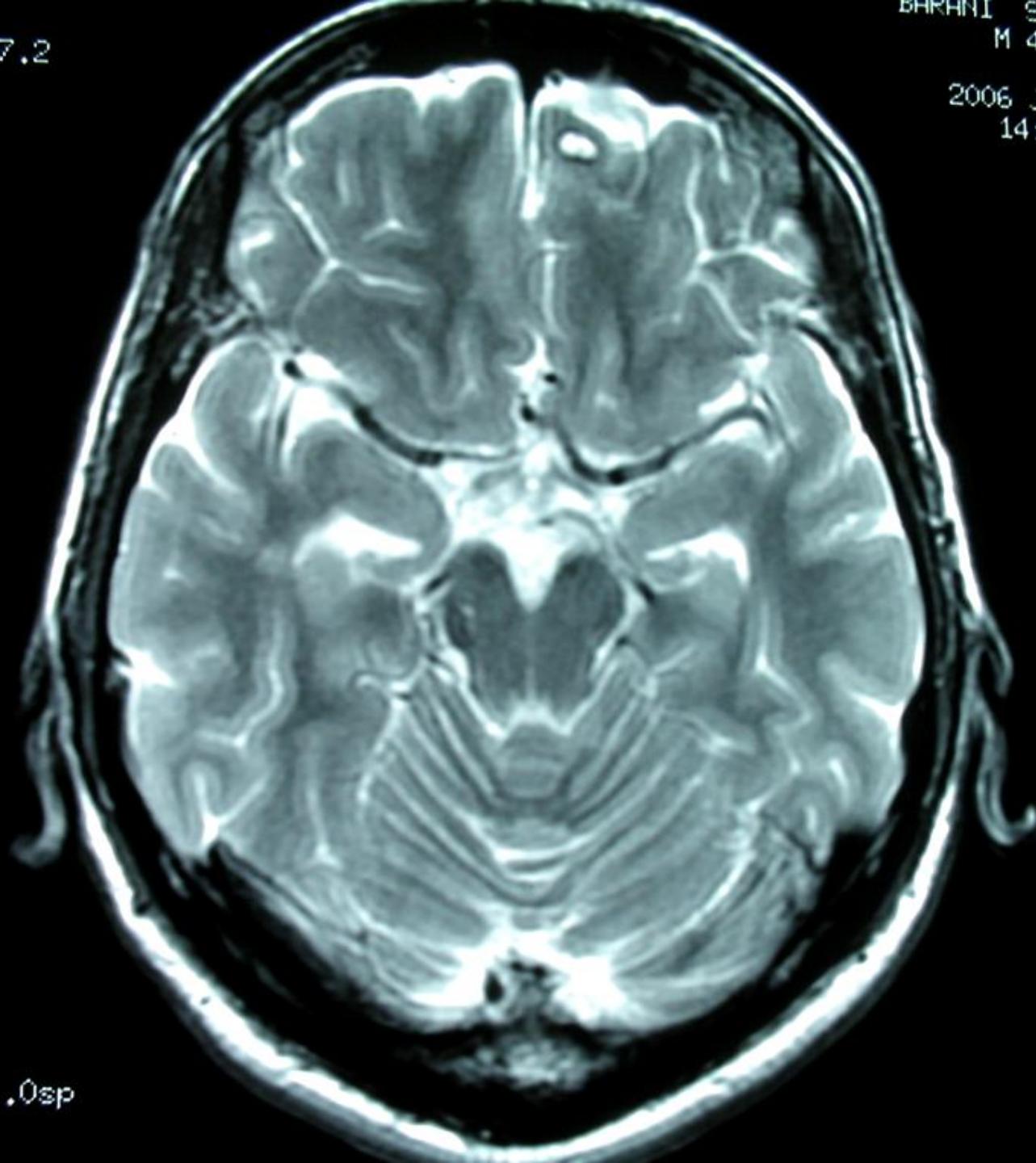


/1.0sp

7.2

BARANI S
M 4

2006 J
14

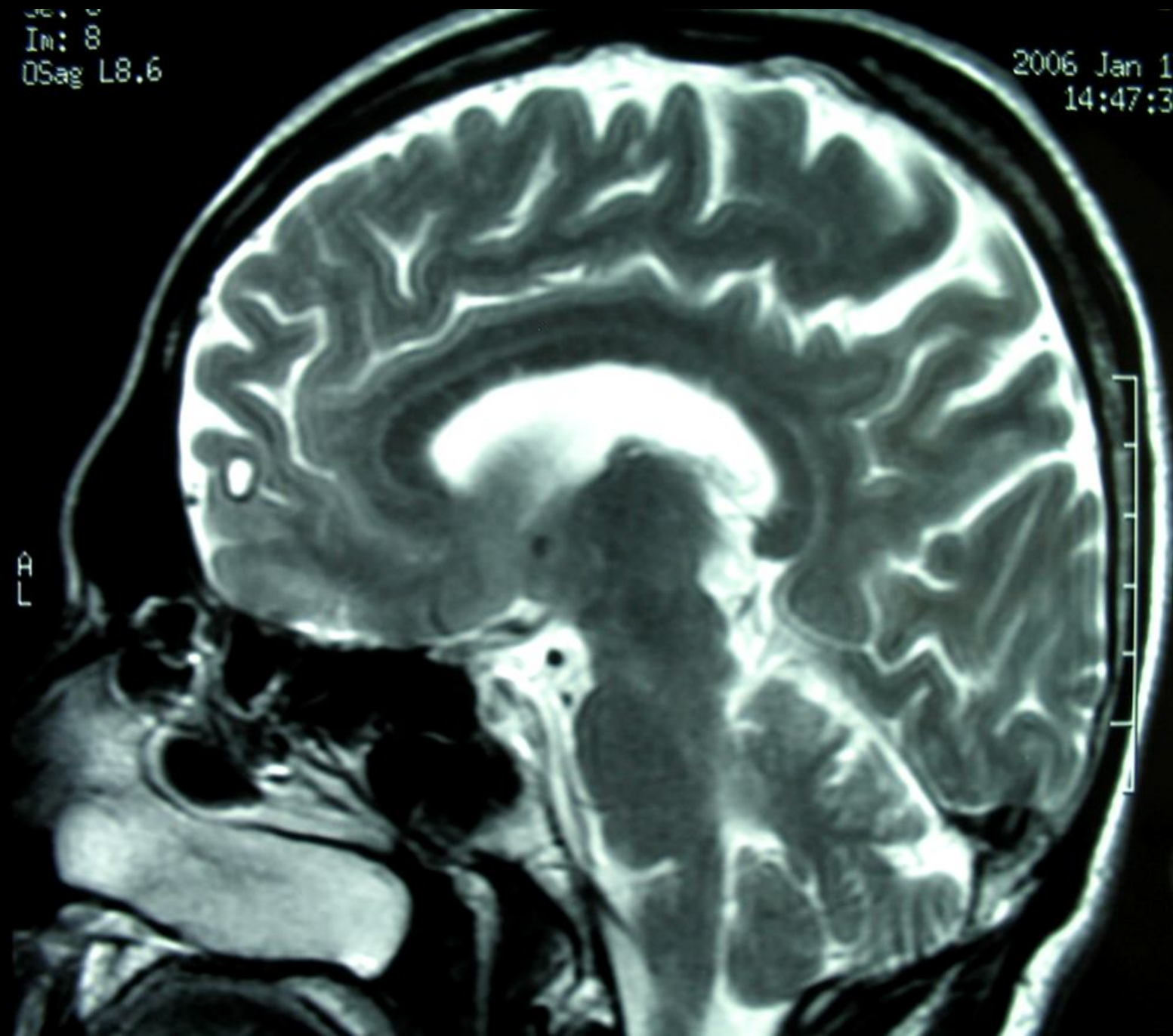


.0sp

001
Im: 8
QSag L8.6

2006 Jan 17
14:47:36

R-P



SIGNA EXCITE 1.5T GEMSGEMS
Ex: 17228
Se: 6
In: 10
OSag L22.6

Nawa Teb Medical Imaging Center
BARANI SADEGH
M 43Y 25
2006 Jan 17
14:47:36



6.00thk/1.0sp

SIGNA EXCITE 1.5T GEMSGEMS
Ex: 17228
Se: 6
In: 11
OSag L29.6

Nawa Teb Medical Imaging Center
BARANI SADEGH
M 43Y 25
2006 Jan 17
14:47:36

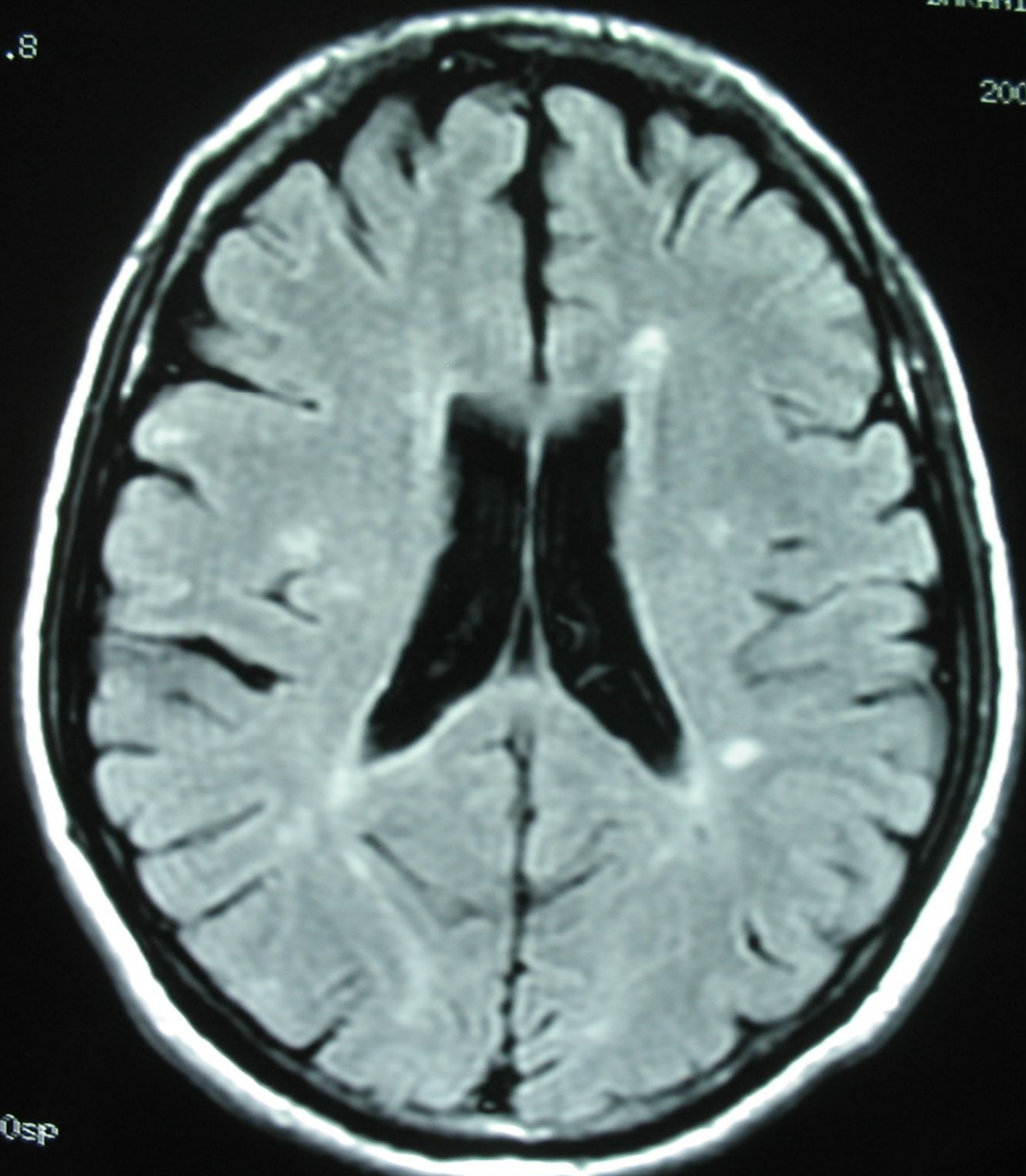


6.00thk/1.0sp

11
S14.8

SHARAH SHUEGI
M 43Y 21

2006 Jan 1
14:43:5



1.0sp



N 4

2006 J
14:

nk/1.0sp

CASE 11

MULTIPLE SCLEROSIS AND CHOLEOSTATOMA

*Department of Neurology, Loghman
Hospital, Shahid Beheshti University of
Medicine, Tehran, Iran*

CLINICAL AND PARACLINICAL FINDINGS

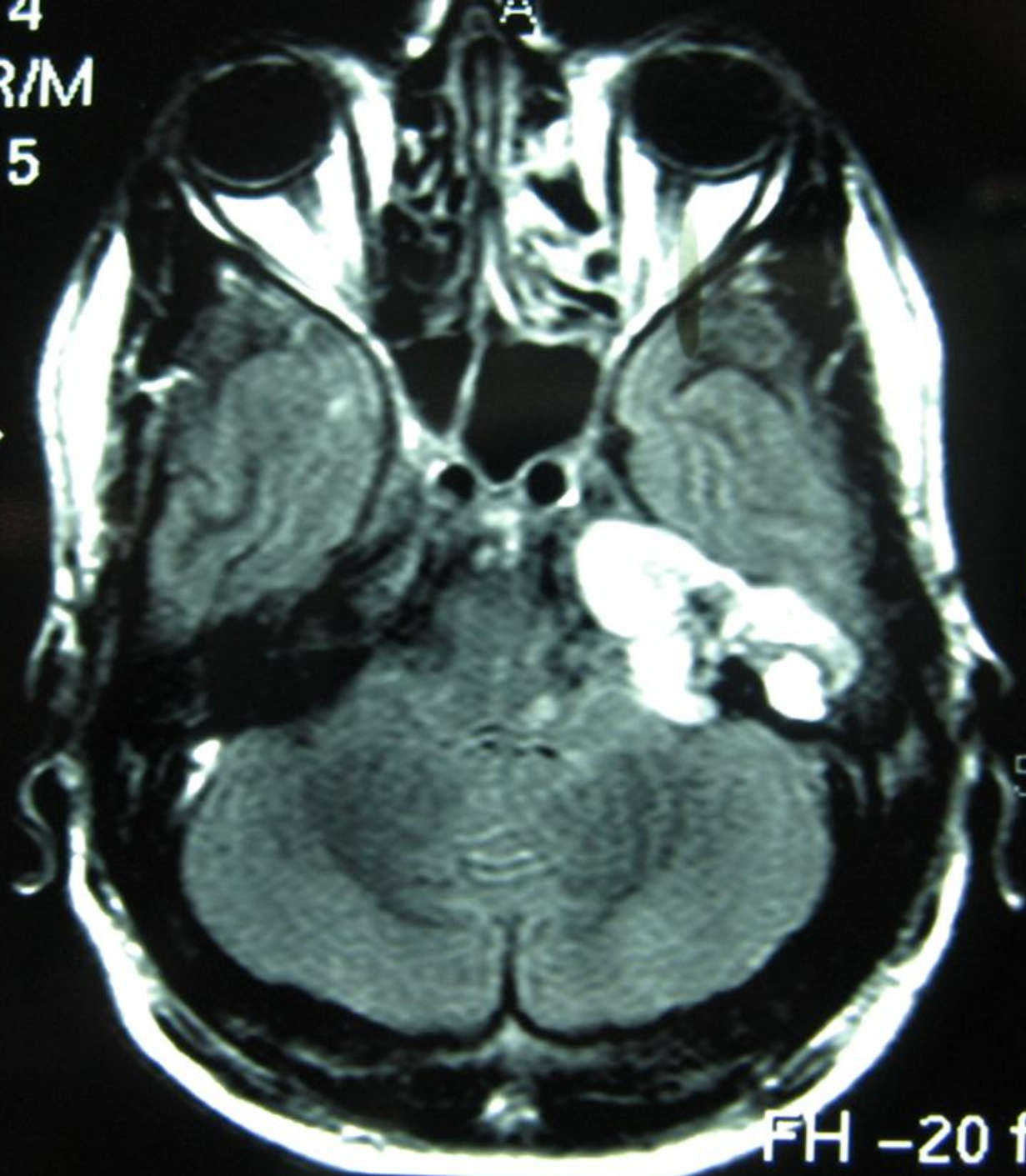
- A 30-year old man with progressive weakness and paresthesia in lower limbs since 2-year PTA. After 5-6 months he suffered weakness and paresthesia in right side of body. Blurred vision in right eye and then left eye and diplopia were other complains Since 1- year ago he has been found left hemi facial weakness and he had history of left middle ear infection since long years ago.
- N/E findings were: left Marcus Gunn, left sixth nerve palsy, right inter nuclear opthalmoplegia (INO), left peripheral facial palsy, right sided hemiparesia, right sided sensory loss, right up ward plantar reflex and absent abdominal reflex.
- Abnormal VEP and positive OCB

MRI FINDINGS

- **Multiple T2W hypersignal lesion in periventricular and corpus callosal white matter**
- **A choleostatoma in left middle ear ,left mastoid and temporal region**



C 4
R/M
5



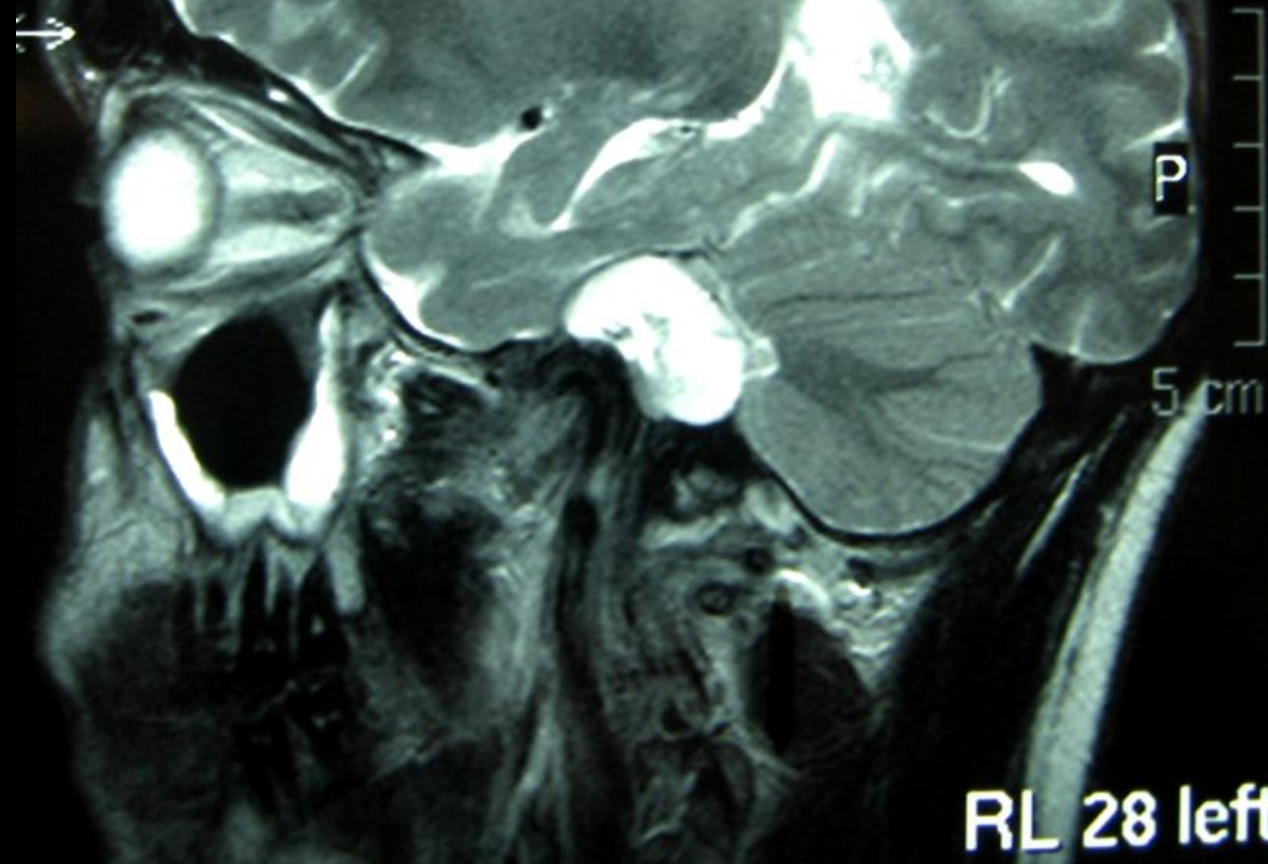
L

5 cm

FH -20 fee

c 6
SE/M
L 5

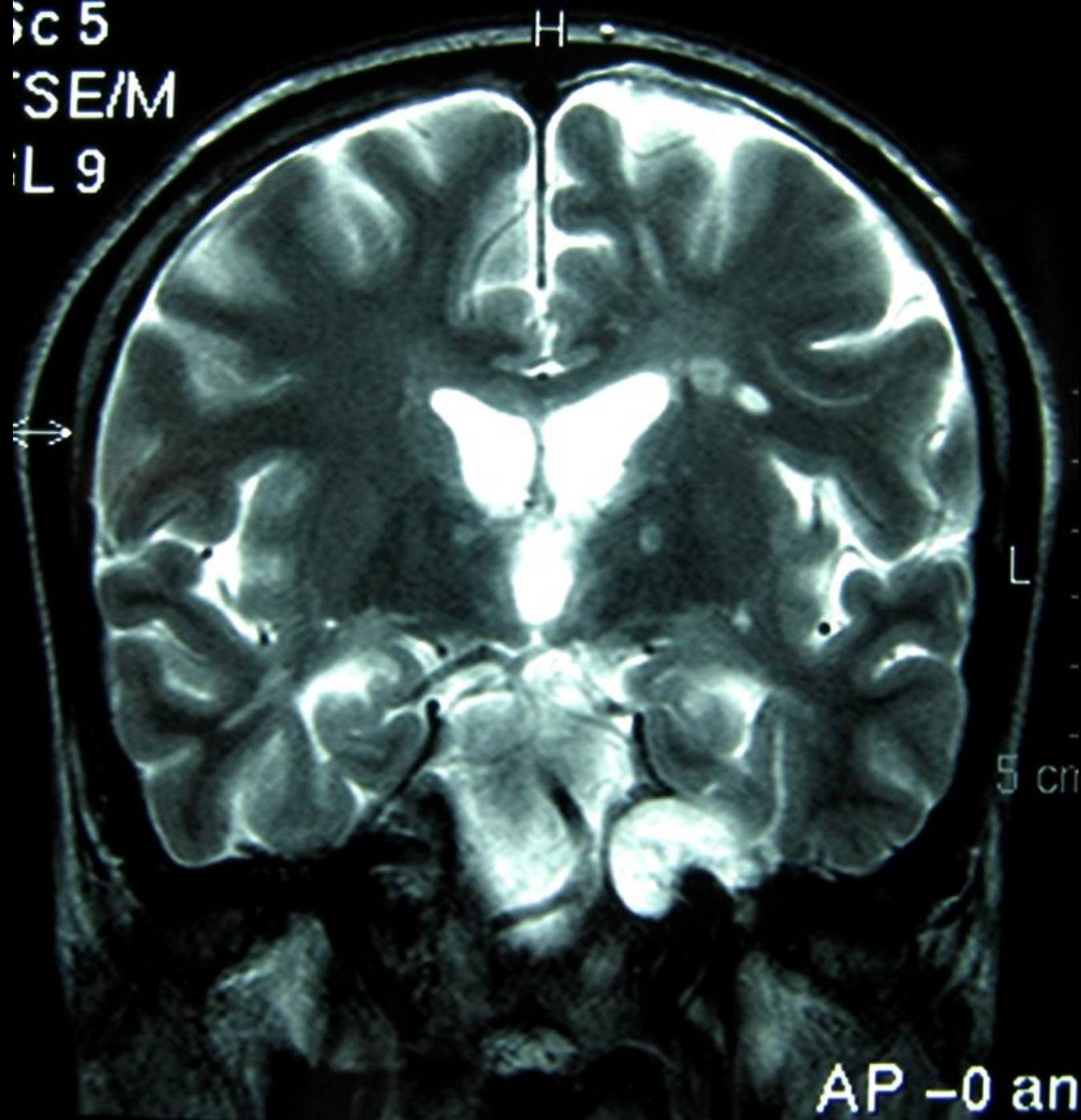
H



5 cm

RL 28 left

Sc 5
SE/M
L 9



L

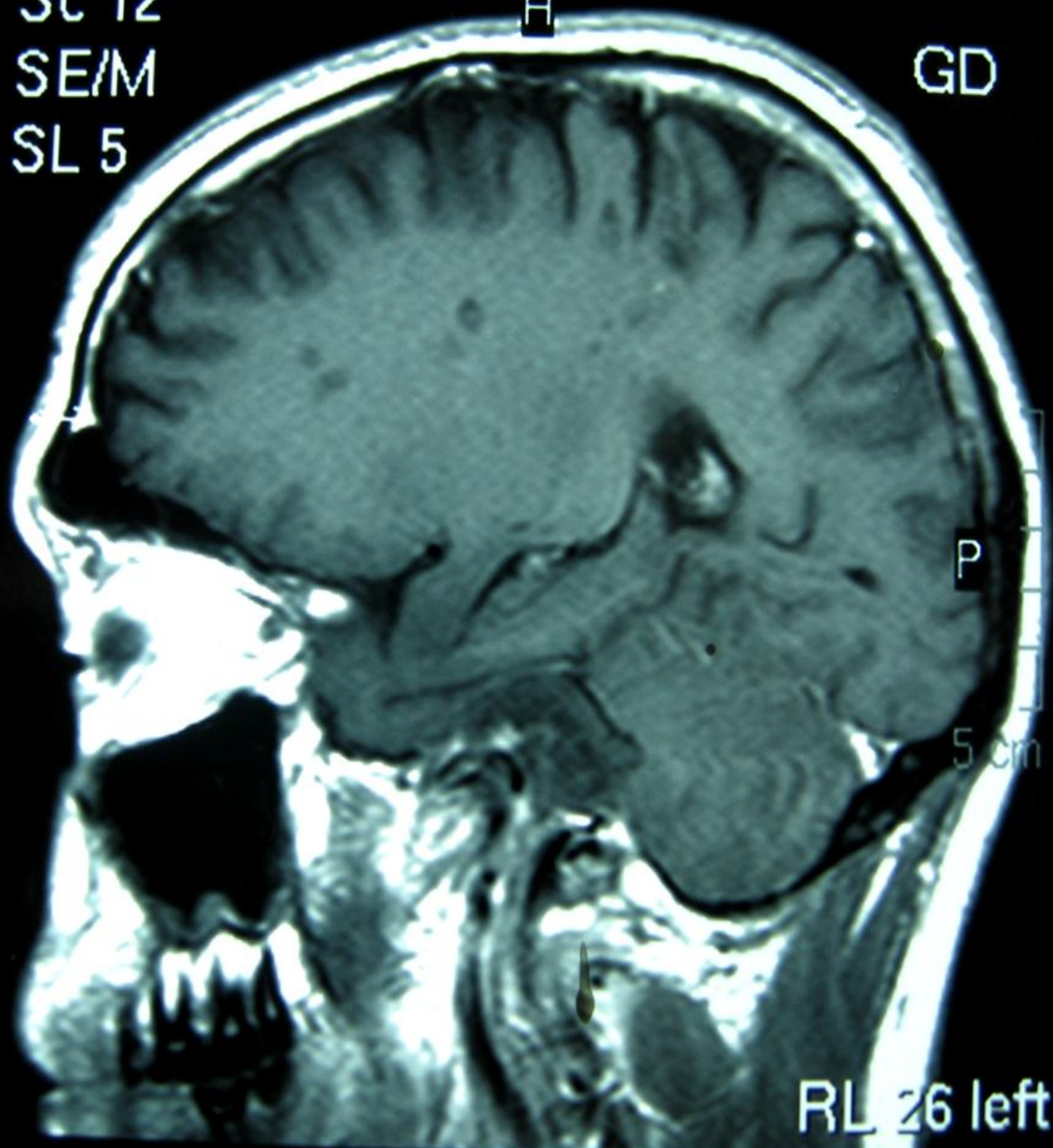
5 cm

AP -0 an

Sc 12
SE/M
SL 5

H

GD



P

5 cm

RL 26 left

CASE 12

MONOZYGOTIC TWINS



CLINICAL AND PARACLINICAL FINDINGS

In February 2001 a 14 year old boy referred to our clinic with right side optic neuritis. Brain MRI showed 3 T2 hyperintense lesions suggestive of demyelinating disease. Visual evoked potential showed increased P100 latencies in both eyes and oligoclonal band was positive in CSF analysis. The patient was admitted and treated with intravenous methyprednisolone. 6 months later he developed right side hemiparesis again treated with IV corticosteroid

- **In July 2001 the identical twin of case 1 referred to us with right side optic neuritis and his brain MRI also showed 3 hyperintense T2 lesions. Visual evoked potential showed increased P100 latencies in both eyes and oligoclonal band was seen in CSF analysis. He also treated with IV corticosteroid. Four months later he developed left side hemiparesis which treated with steroids**

0000000838
ABBASI MAHMMOUD
FS 8.0 TRS

01/01/87 M
14Y-M

A

R-L 04/02/01

E# 2/2
TR 4000
TE 130
FA 90
HF/S
H 240
P +17.5
A +75
NSA 2
PRJ 144
SML 512 R

11:13:08

ARS

2DFS

5084

F0

A13

L

W1000

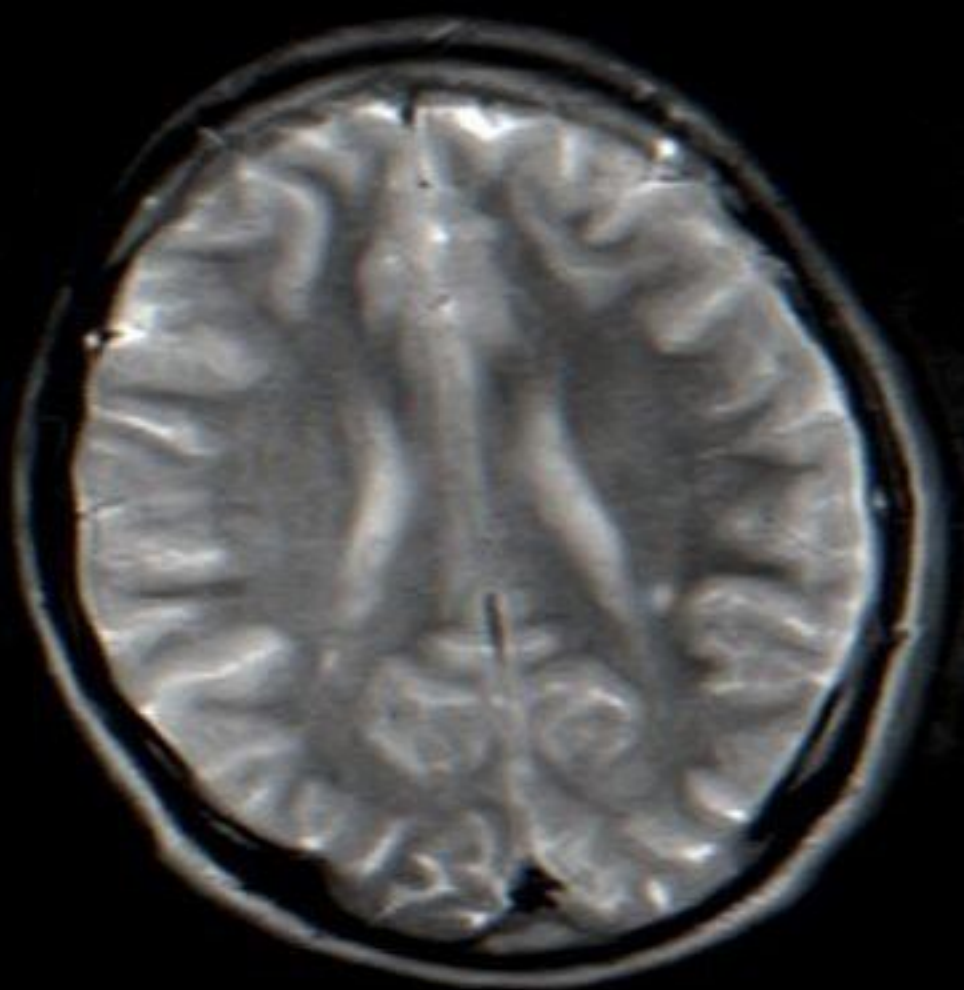
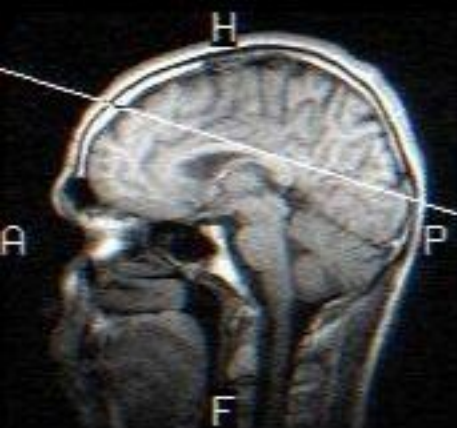
+550

NS2

P128

R213

256*256



P

0000000838

01/01/87 M

A

R-L 04/02/01

ABBASI MAHMMOUD

14Y-M

FS 8.0 TRS

E# 2/2

TR 4000

TE 130

FA 90

HF/S

H 240

P +17.5

A +7S

NSA 2

PRJ 144

SML 512 R

11:13:08

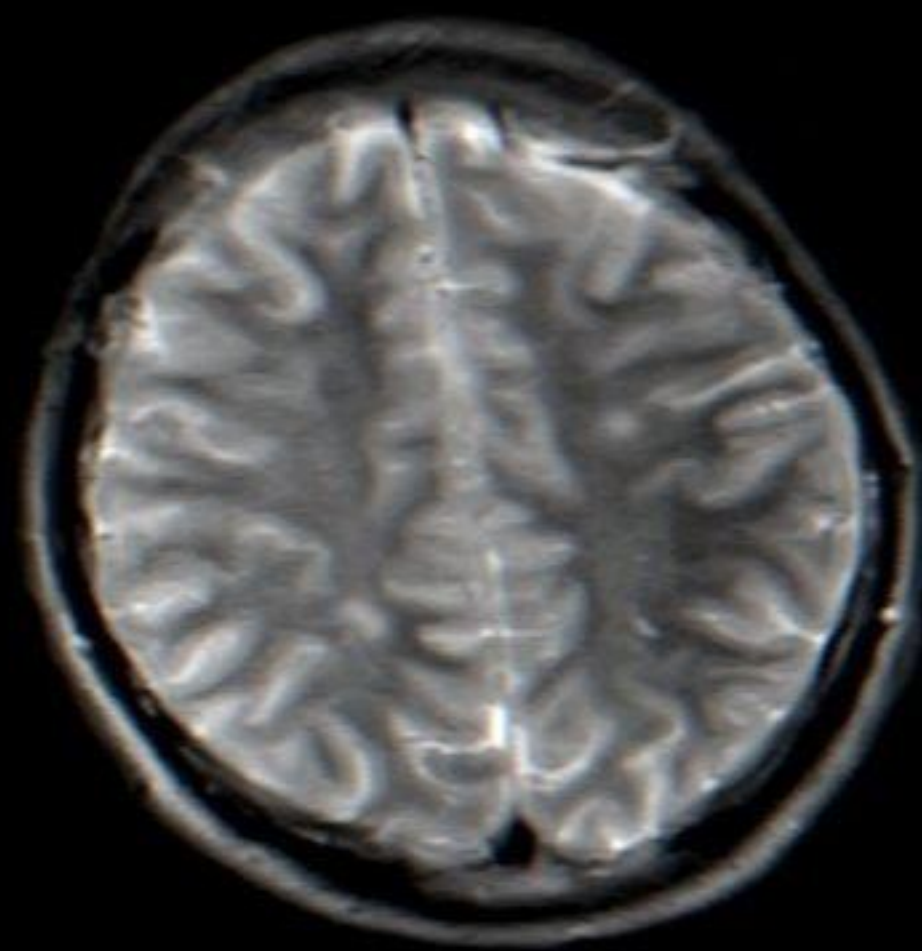
ARS

2DFS

S084

F0

A13



L

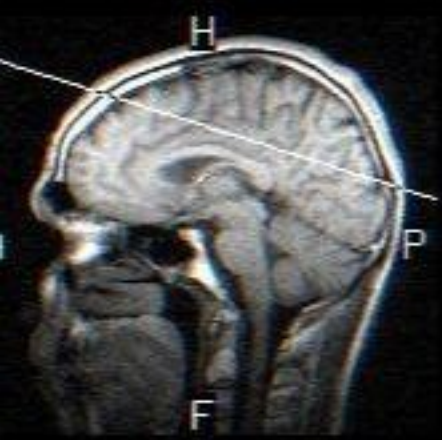
W1000
+550

NS2

P128

R213

256*256



P

0000000838

01/01/87 M

R-L 14/06/01

ABBASI AHMMAD 14Y-M

08:46:11

FS 8.0 TRS

S# 9/12

00:04:16

E# 2/2

TR 4000

TE 130

FA 90

HF/S

H 240

P -54.5

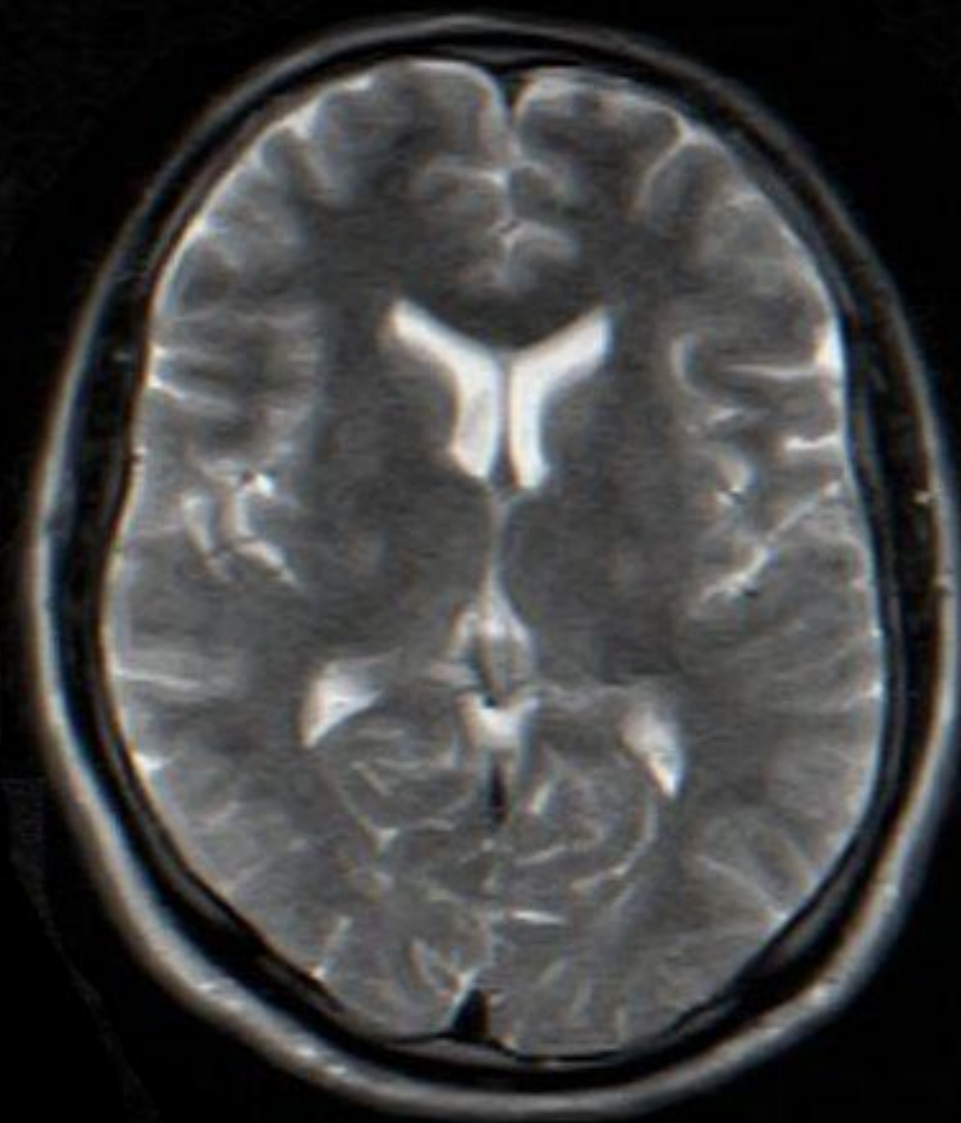
A +75

NSA 2

PRJ 144

SML 512 R

ARS
2DFS
SQ84
F0
A13



L
W1000
+500

NS2
P128

R213

256*256

0000000838

01/01/87 M

A

R-L

14/06/01

ABBASI AHMMAD

14Y-M

08:46:11

FS 8.0 TRS

S# 12/12

00:04:16

E# 2/2

TR 4000

TE 130

FA 90

HF/S

H 240

P -81.5

A +75

NSA 2

PRJ 144

SML 512 R

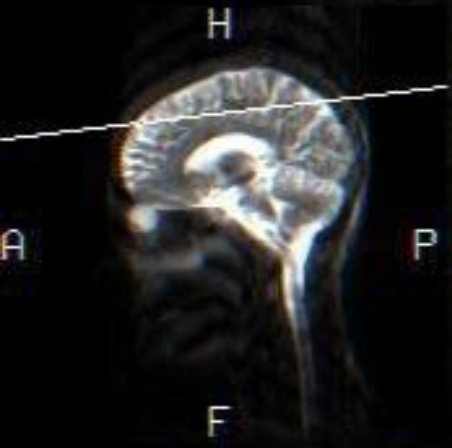
ARS
2DFS
SQ84
F0
A13



L
W1000
+500

NS2
P128
R213

256*256



BRAIN

P

0000000838

01/01/87 M

R-L 14/06/01

ABBASI AHMMAD

14Y-M

08:46:11

FS 8.0 TRS

S# 8/12

00:04:16

E# 2/2

TR 4000

TE 130

FA 90

HF/S

H 240

P -45.5

A +75

NSA 2

PRJ 144

SML 512 R

ARS

2DFS

S084

F0

A13

L

W1000

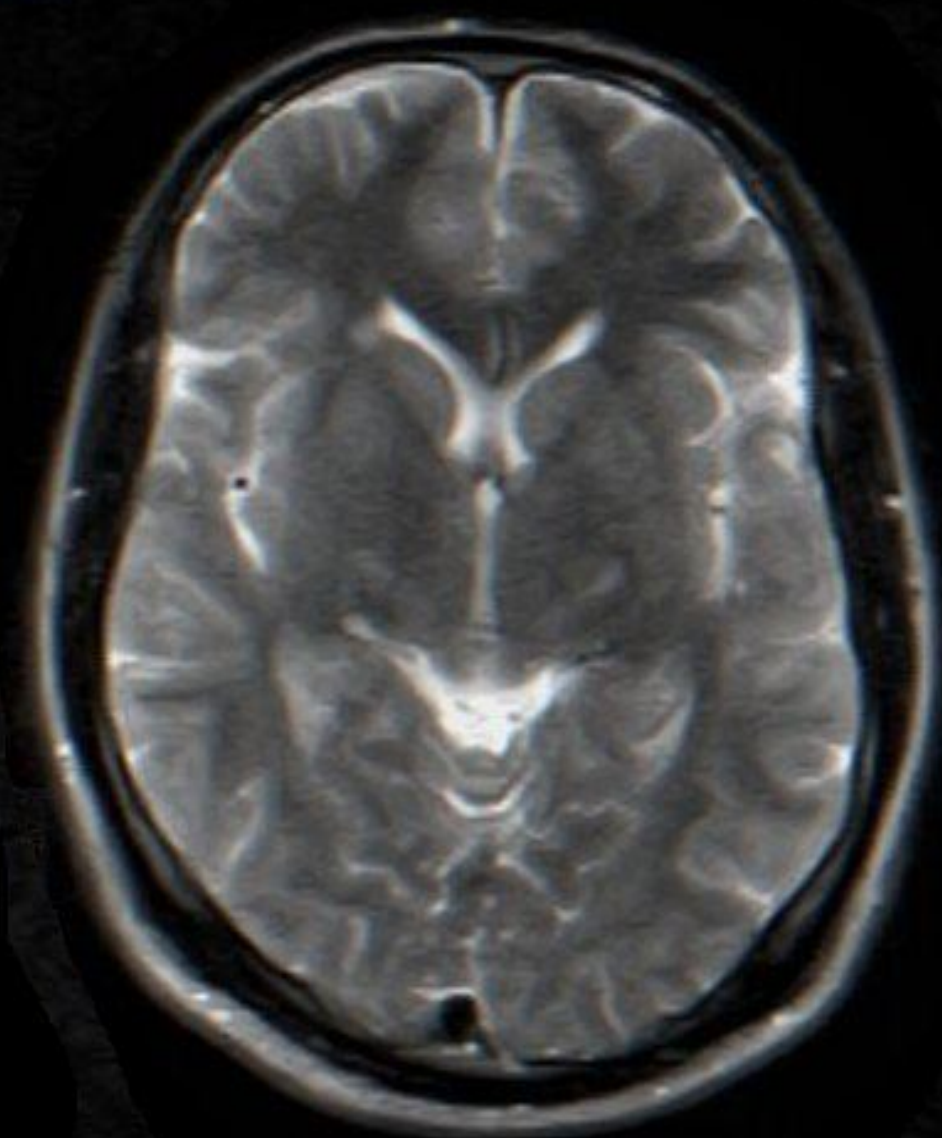
+500

NS2

P128

R213

256*256





CASE 13

**DO YOU TREAT THIS CASE
WITH
IMMUNOMODULATOR**



CLINICAL AND PARACLINICAL FINDINGS

- 31 years right handed female with a history of 9 episodes of neurological disorder(optic neuritis, right side hemiparesis,paraparesia with sensory abnormality and sphincter disorder, gait ataxia and cerebellar disorder, left side hemiparesia) which cleared all of them between 2-6 weeks after treatment with the course of pulse therapy in two occasion IVIG . In neuro-examination her EDSS is 3.5,with right side optic atrophy, spastic quadriparesia,cerebellar sign. Lab test :positive oligoclonal band, normal analysis in spinal fluid, abnormal bilateral VEP,SEP and AEP but all routine lab especially CVD and alternative in every attack were reported.

MRI STUDIES

- **13 MRI of brain and spinal cord with and without GAD injection reported normal.**

CASE 14

**DO YOU TREAT THIS CASE
WITH
IMMUNOMODULATOR**



CLINICAL AND PARACLINICAL FINDINGS

- A 24-years old right handed female was in excellent health until age 21 who developed with 3 episode of tonic spasm of right hand each episode lasted less than ten second without extension to other extremities or loss of consciousness. Patient did not have any history of seizure disorder, physical and neurological examination were normal and all routine lab were reported normal.

MRI STUDIES

- MRI of the brain showed 11 plaques 3-8 mm very characteristic of MS.
- MRI of spinal cord was normal.
- One year later MRI of the showed 14 plaques and MRI of spinal cord had one plaque about 12 mm in cervical cord.
- 1-2 years later MRI of the brain and spinal cord were done and there was no significant changes.

Clinical course

- Patient was placed on lamotrigine. She denies any episodic tonic spasm or other neurological disorder and N/E is in normal limits.

