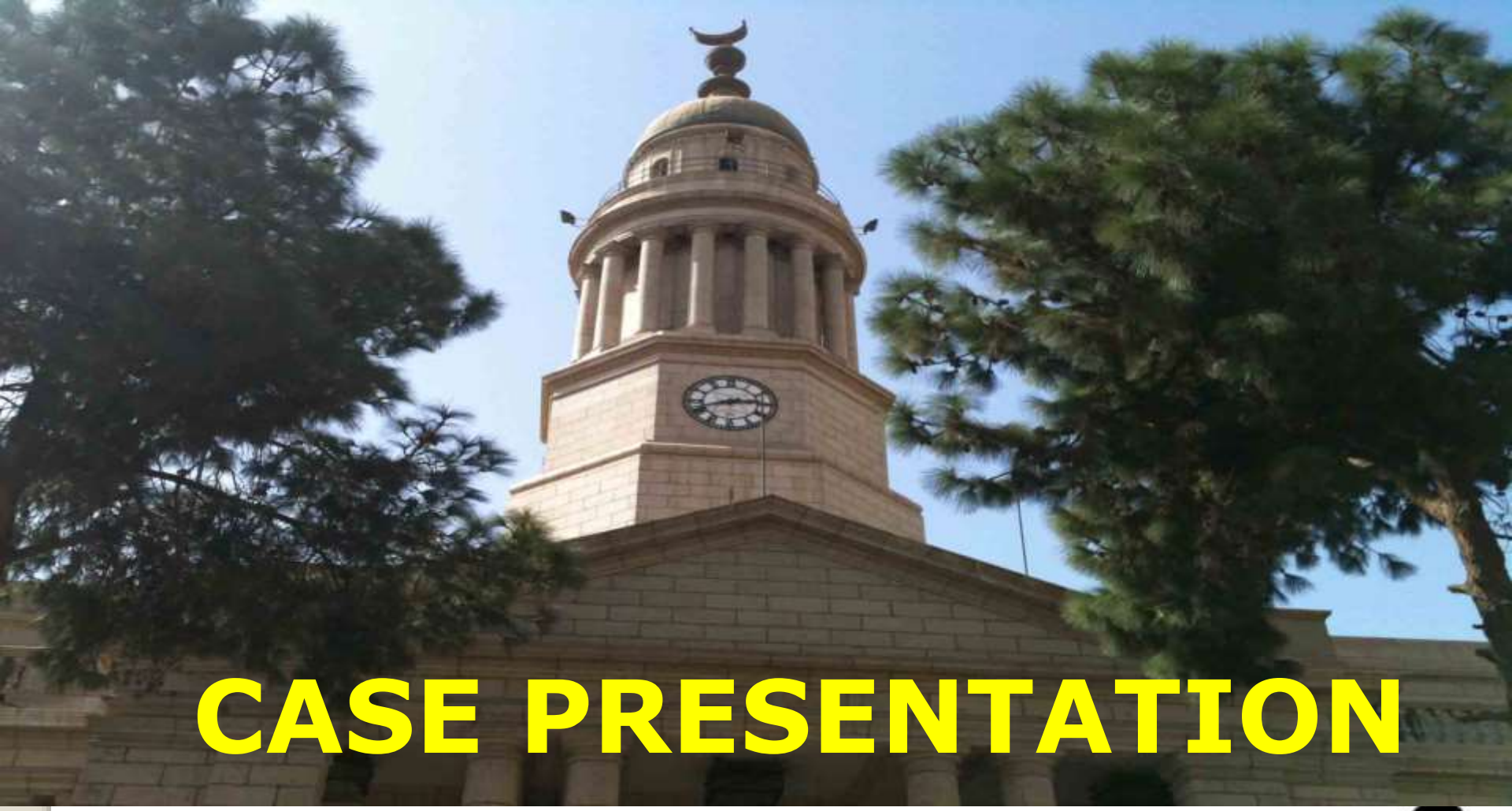


CASE PRESENTATION

Amr Hasan, M.D.

Lecturer of Neurology - Cairo University

Cairo Neuro 2013

PERSONAL HISTORY

- **35 years old male patient.**
- **Construction Worker.**
- **Divorced 5 years ago.**
- **Tramadol and Hashish addict but no IV drug abuse.**

PAST HISTORY

- **Not diabetic or hypertensive.**
- **No cardiac, renal or hepatic troubles.**
- **History of repair of ureteric stricture operation while was 10 y old.**
- **History of occasional contact with birds.**

PRESENT HISTORY

- **Presented to our OPC with acute weakness of both upper and lower limbs that was:**
  - ✓Assymetrical (left side >right side)
  - ✓Proximal >distal.
- **Pt became ambulant with maximal support within 2 days.**

PRESENT HISTORY

- **3 weeks prior to the onset of this weakness the patient had persistent fever with night sweats.**
- **There was no GIT,respiratory,UT troubles.**
- **No disturbed consciousness, neck stiffness any other neurological deficits.**

PRESENT HISTORY

- **Fever lasted 15 days then he was admitted to fever hospital for 7 days in which the fever remitted then the patient was discharged with no available data as regard investigations done and treatment received there.**

PRESENT HISTORY

- **3 days later, fever recurs with confusion , disorientation to time ,place and person , visual and auditory hallucinations and he started to develop the above mentioned weakness**

PRESENT HISTORY

- **Acute weakness of both upper and lower limbs that was:**
  - ✓Assymetrical (left side >right side)
  - ✓Proximal >distal.
- **Pt became ambulant with maximal support within 2 days.**

PRESENT HISTORY

- **Condition was associated with Retention of urine.**
- **The condition was also associated with Persistent hiccough.**
- **Continuous bifrontal and occipital ,dull aching Headache ,moderate intensity,with no phtophobia ,phonophobia,nausea , vomiting or blurring of vision.**

PRESENT HISTORY

- **No history of oral or genital ulcers.**
- **No history of DVT.**
- **No history of small joint pains.**
- **No history suggestive of bony aches or organomegaly.**
- **No chest troubles.**

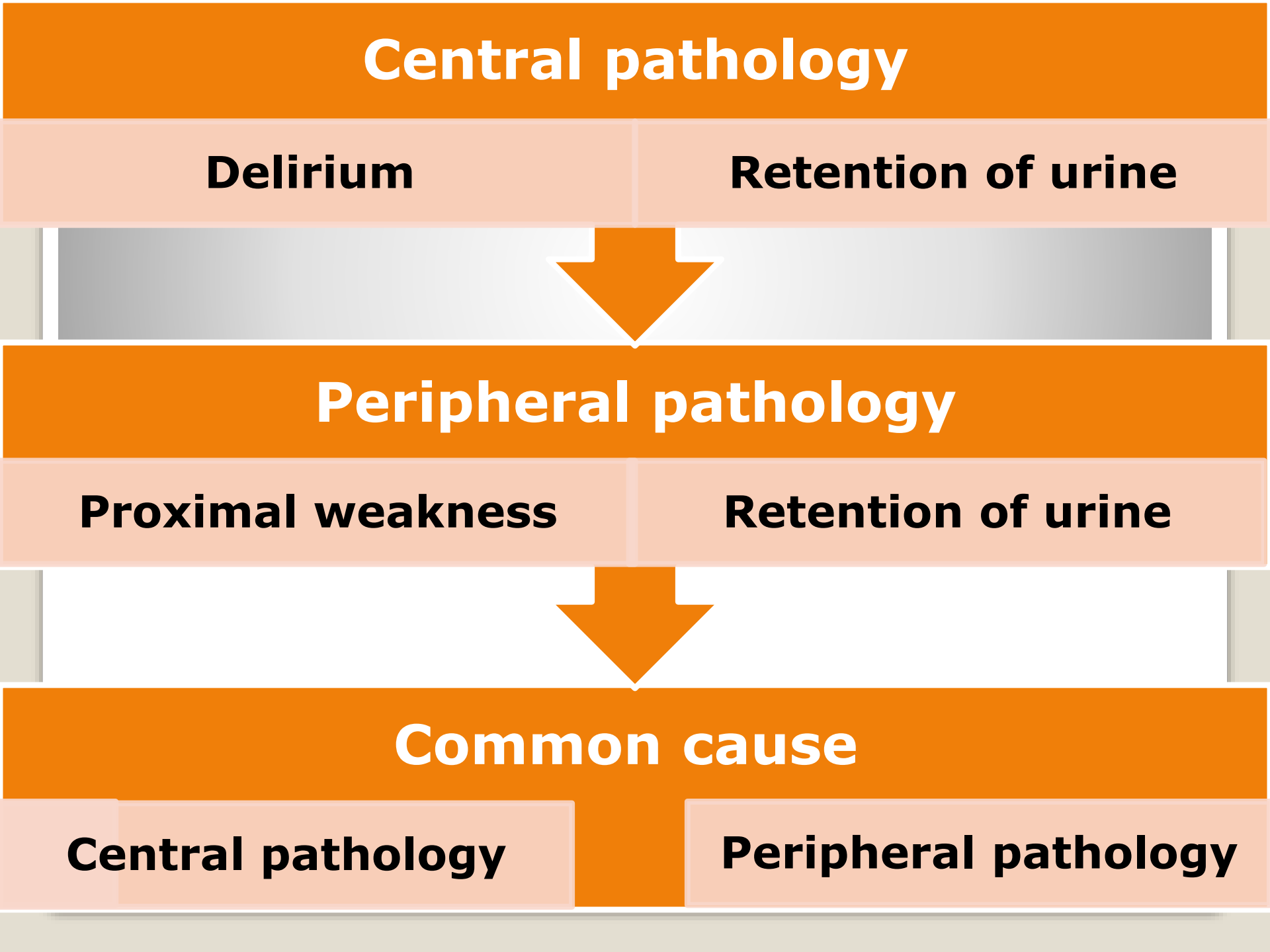
Persistent fever for 2 w

Subsided for 3 days

Recurrence of fever with confusion ,acute proximal weakness and retention of urine

Localization!!

Central or peripheral N S Pathology


Central pathology
Delirium
Retention of urine
Peripheral pathology
Proximal weakness
Retention of urine
Common cause
Central pathology
Peripheral pathology

PRESENT HISTORY

- **What is the likely localization according to such history:**

1. Central pathology
2. Peripheral pathology
3. Common aetiology causing both central and peripheral manifestations.

Differential Diagnosis

For those who chose central pathology,which of the following would be the likely aetiology

1. **Bacterial Meningitis.**
2. **Viral Encephalitis.**
3. **CNS Vasculitis.**
4. **T.B. meningo enephalitis.**
5. **Acute disseminated encephalmyelitis.**
6. **Other possibilties.**

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Differential Diagnosis

For those who chose peripheral pathology,which of the following would be the likely aetiology

1. **Landry Guillian Barre Syndrome (LGB).**
2. **Chronic Inflammatory Demyelinating Polyneuropathy (CIDP).**
3. **Metabolic Radiculoneuropathy.**
4. **Infectious Radiculoneuropathy.**
5. **Other possibilties.**

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Differential Diagnosis

For those who chose Common aetiology causing both central and periperal manifestations, which of the following would be the likely aetiology :

1. **Systemic Infection.**
2. **Collagen vascular disorder.**
3. **Metabolic aetiology.**
4. **Drug abuse.**
5. **Demyeliating disease.**
6. **Other possibilties.**

GENERAL EXAMINATION

- **Blood pressure :**

Recumbant 120\80

Supine 100\70

- **Pulse=90**
- **RR=16**
- **Temperature=38**

GENERAL EXAMINATION

Abdominal examination:

- Suprapubic swelling (bladder distension).
- No organomegaly or ascites.

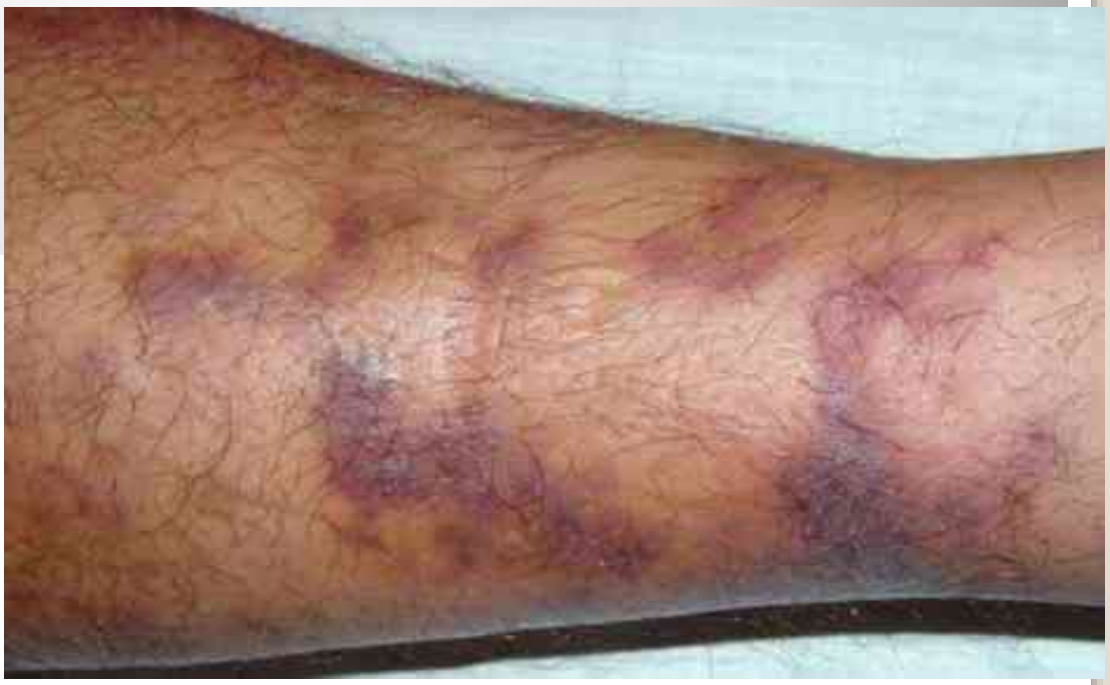
Chest and Cardiology examination:

NAD

GENERAL EXAMINATION

Skin examination:

- Bilateral reddish papules on chin of the tibia.



NEUROLOGICAL EXAMINATION

Mental state examination:

- Pt is conscious.
- Confused, Inattentive and Disoriented to time ,place or person.

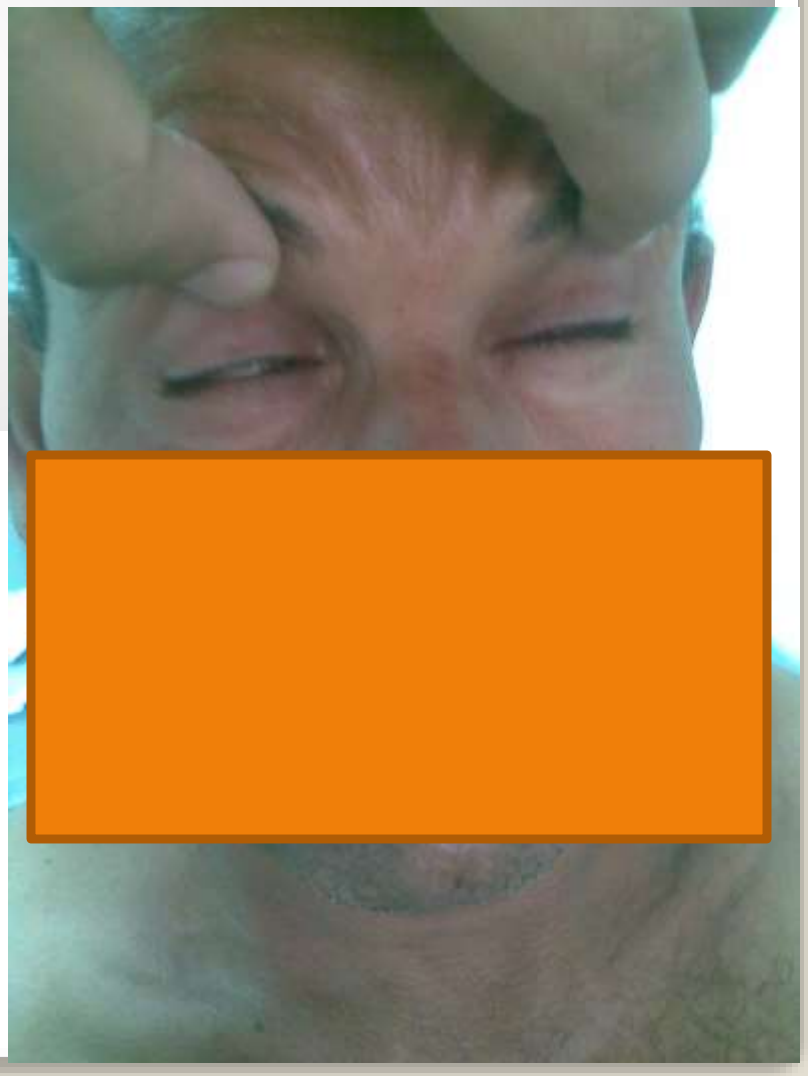
Speech

- Normal with no aphasia or dysarthria.

NEUROLOGICAL EXAMINATION

CRANIAL NERVE EXAMINATION:

- Mild bilateral facial nerve palsy (LMNL).
- Other cranial nerve examination reveals no abnormality.



NEUROLOGICAL EXAMINATION

Motor examination:

- Muscle state: no wasting or fasciculations
- Muscle tone: normal
- Power:

	UL		LL	
	RT	LT	RT	LT
PROXIMAL	3+	3-	3+	3-
DISTAL	4+	4-	4+	4-

NEUROLOGICAL EXAMINATION

Reflexes

	RT	LT
BRACHIORADIALIS	0	0
BICEPS	0	0
TRICEPS	2	2
KNEE	0	1
ANKLE	2	2

NEUROLOGICAL EXAMINATION

Reflexes

- Bilateral flexor planter.
- Lost abdominal reflexes.

NEUROLOGICAL EXAMINATION

Coordination :

Cannot be assessed(patient was not cooperative).

Gait :

Patient was ambulant with maximal support.

NEUROLOGICAL EXAMINATION

Sensory examination:

Non cooperative patient.

Examination of back:

NAD

NEUROLOGICAL EXAMINATION

- **Did the examination findings change your mind ?**

1. Central pathology
2. Peripheral pathology
3. Common aetiology causing both central and peripheral pathology

INVESTIGATIONS

Labs

CBC

TLC : 3.77 *1000/ cmm

RBCs 4.98 * 1000000/ cmm

HB : 12.5 g/dl

MCV :78 fl

MCH : 25 pg

PLTELETS : 144.000

INVESTIGATIONS

Labs

- LFTs ,KFTs,Na ,K.
- CPK,LDH.
- PT,PC,INR,GLUCOSE

ALL are within normal

INVESTIGATIONS

Labs

ESR:

- First hour 90
- Second hour 55

Urine Analysis:

- Pus cells 80-90.
- Culture and sensitivity revealed enterobacter.

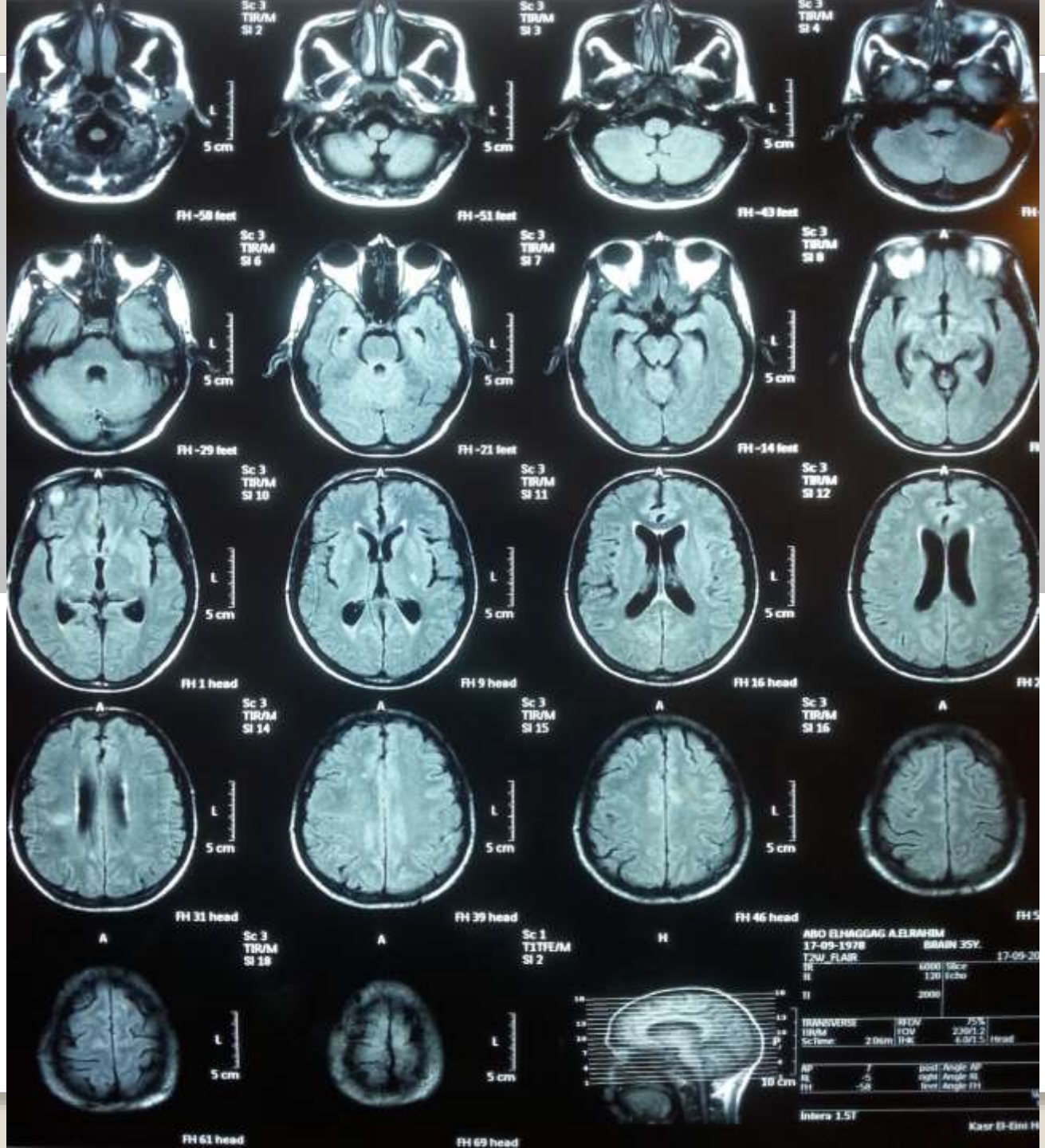
INVESTIGATIONS

- **What is next investigation to be requested at this time:**

1. MRI brain
2. EEG
3. EMG and NC study.
4. MRI Cervical spine.
5. CSF examination.
6. VEP

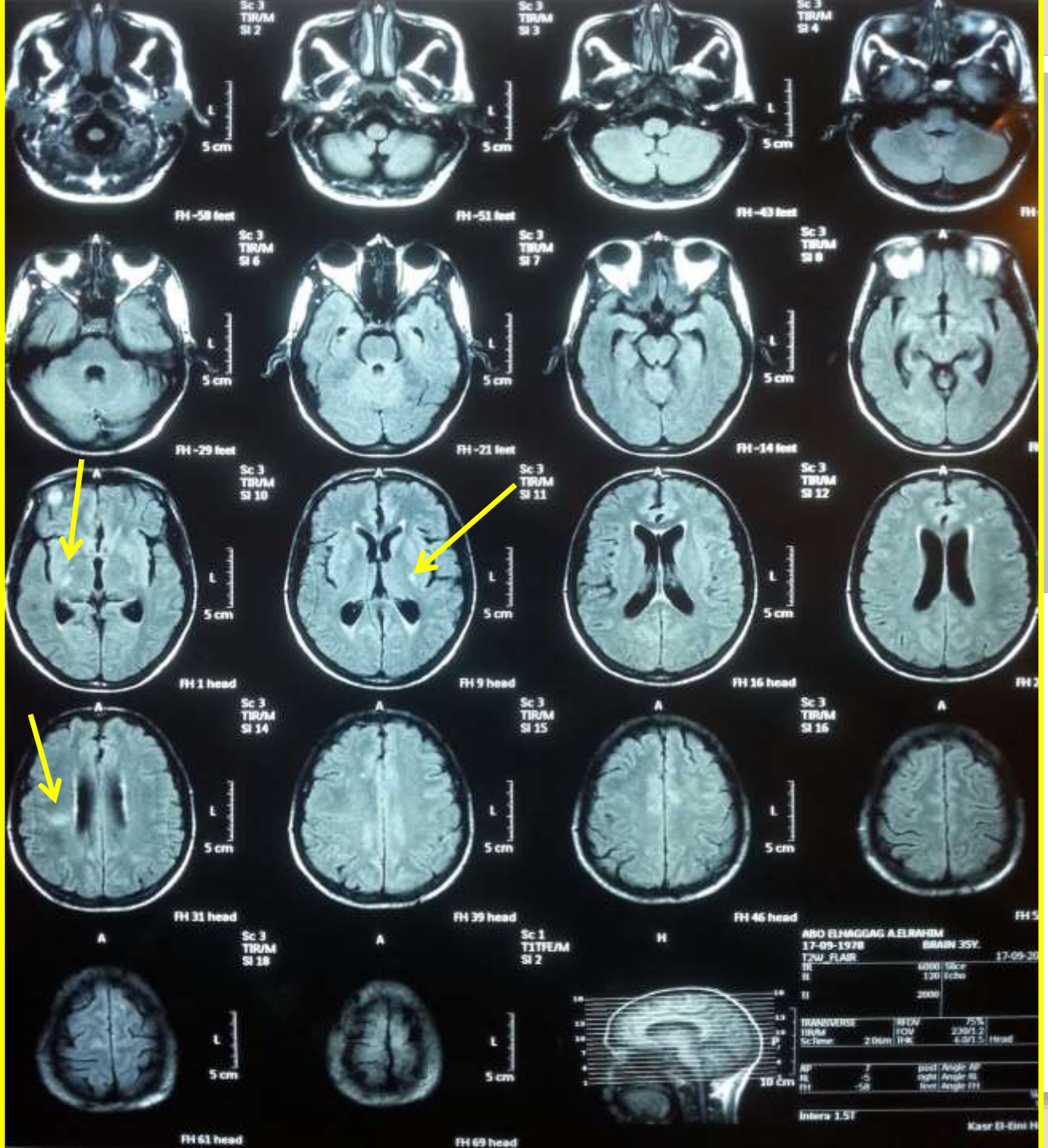
MRI

brain


FH -58 feet
FH -51 feet
FH -43 feet
FH -29 feet
FH -21 feet
FH -14 feet
FH 1 head
FH 9 head
FH 16 head
FH 31 head
FH 39 head
FH 46 head
FH 61 head
FH 69 head
5 cm
ABO ELHAGGAG A.ELRAHIM
17-09-1978
BRAIN 3SY.
T2W_FLAIR
Intera 1.5T

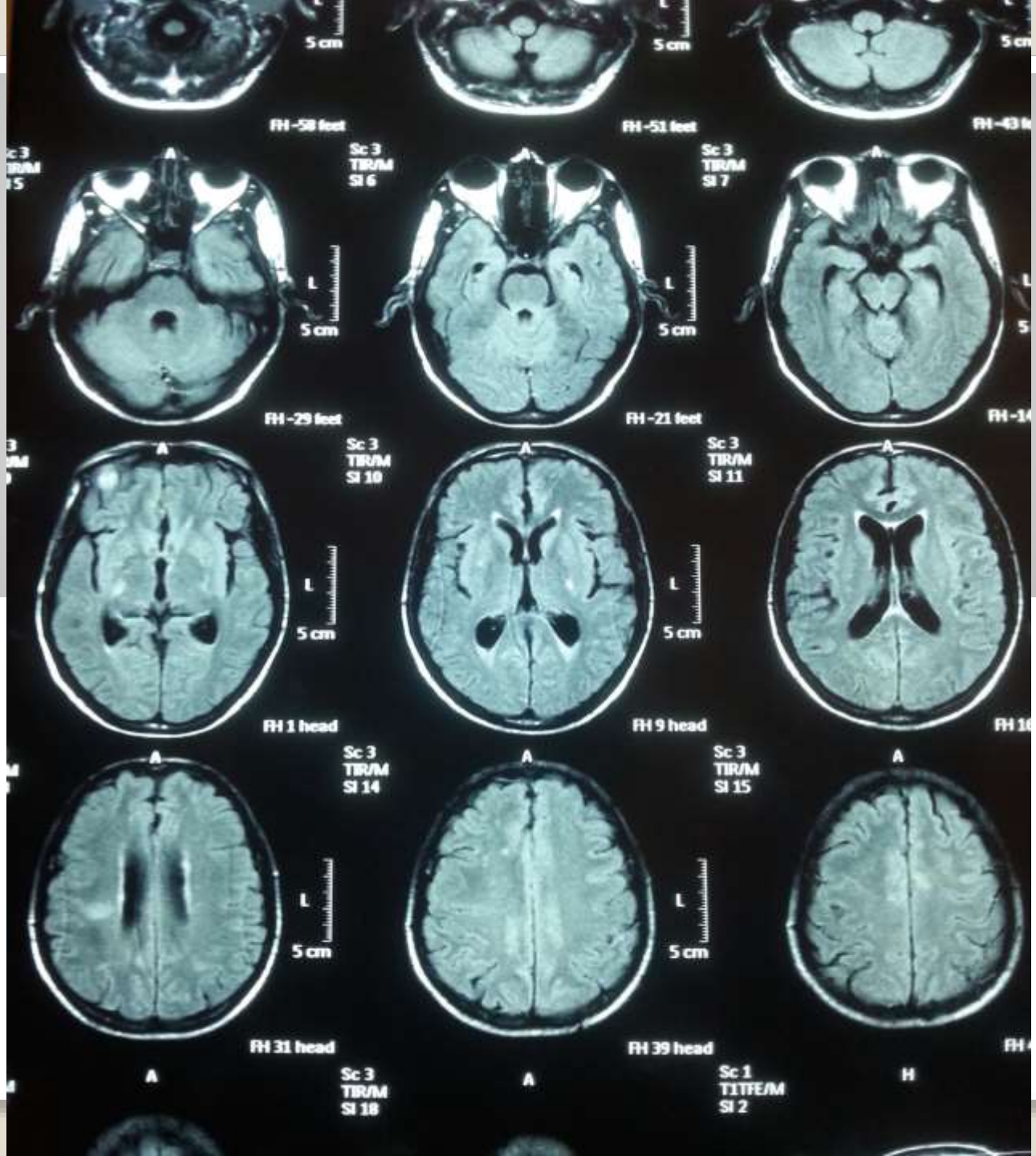
MRI

brain


ABO ELNAGGAG A.ELRAHIM
17-09-1978
BRAIN 35Y.
T2W_FLAIR
Kasr El-Eini H

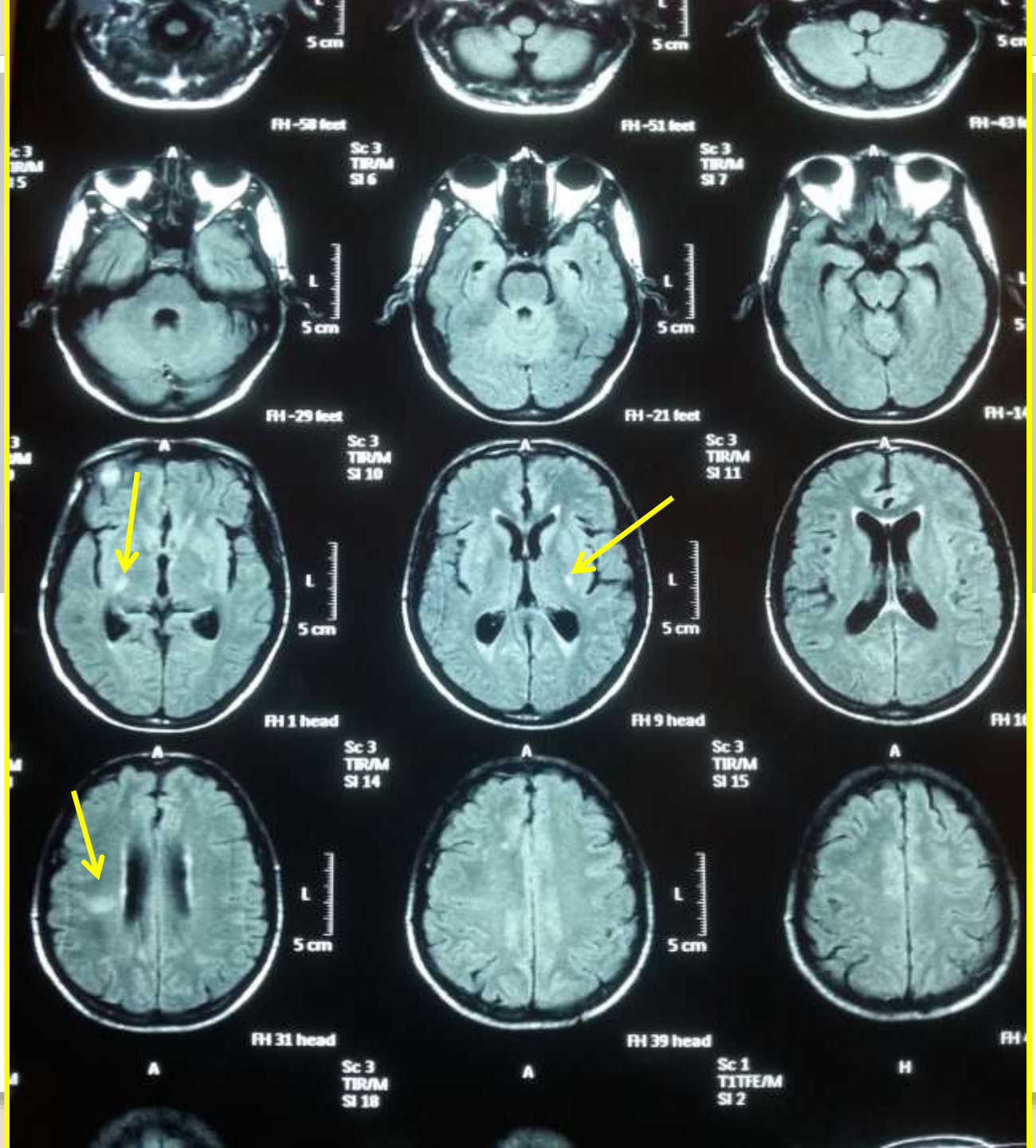
MRI

brain


FH -58 feet
FH -51 feet
FH -29 feet
FH -21 feet
FH 1 head
FH 9 head
FH 31 head
FH 39 head
Sc 3
TIR/M
SI 6
SI 7
SI 10
SI 11
SI 14
SI 15
SI 18
Sc 1
T1TFE/M
SI 2
5 cm
A
L
H

MRI

brain


FH -58 feet
FH -51 feet
FH -29 feet
FH -21 feet
FH 1 head
FH 9 head
FH 31 head
FH 39 head
Sc 3 TIR/M SI 6
Sc 3 TIR/M SI 7
Sc 3 TIR/M SI 10
Sc 3 TIR/M SI 11
Sc 3 TIR/M SI 14
Sc 3 TIR/M SI 15
Sc 3 TIR/M SI 18
Sc 1 T1TFE/M SI 2
5 cm

INVESTIGATIONS

Video EEG: generalized slowing with background activity of 6 c/s (theta waves) with no focal or generalized disharges.

INVESTIGATIONS

EMG and NC study: NL

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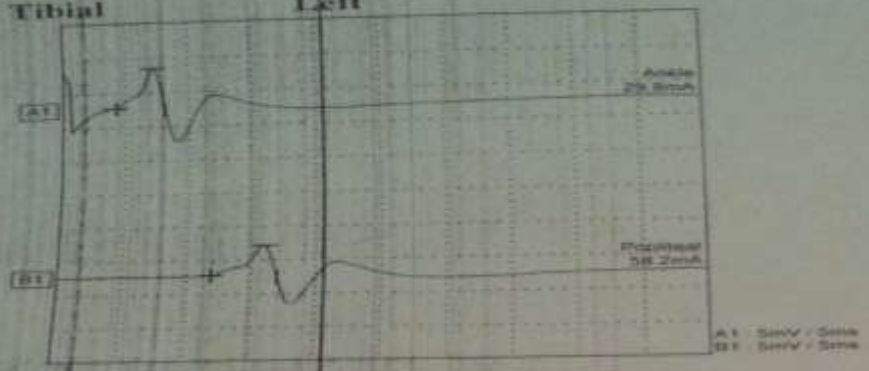
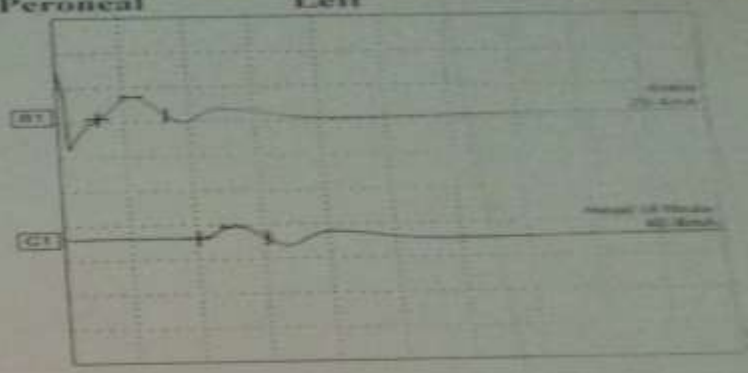
Motor Nerve Conduction Study

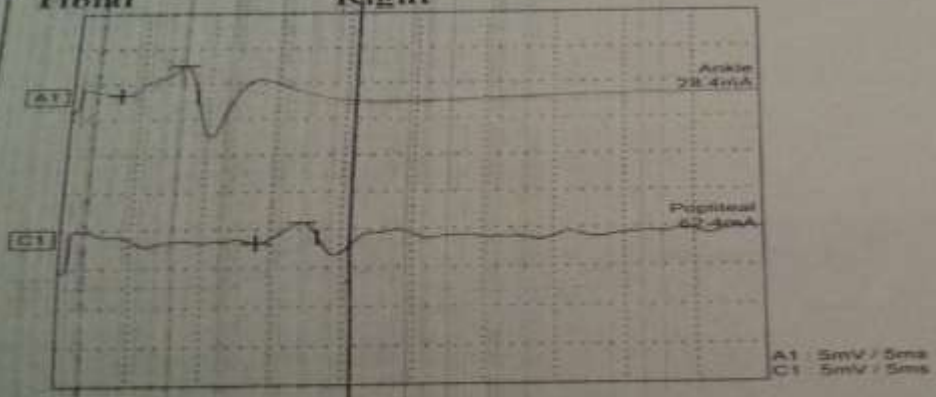
Tibial Left



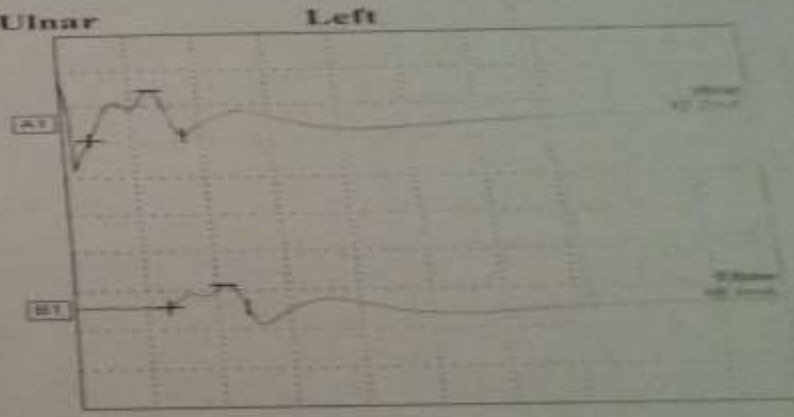
Peroneal Left



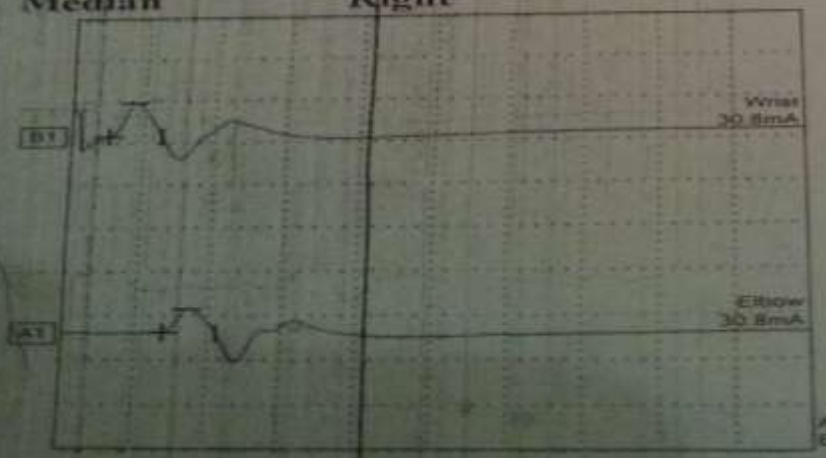
Tibial Right



Ulnar Left



Median Right



INVESTIGATIONS

PATTERN VEP : NL

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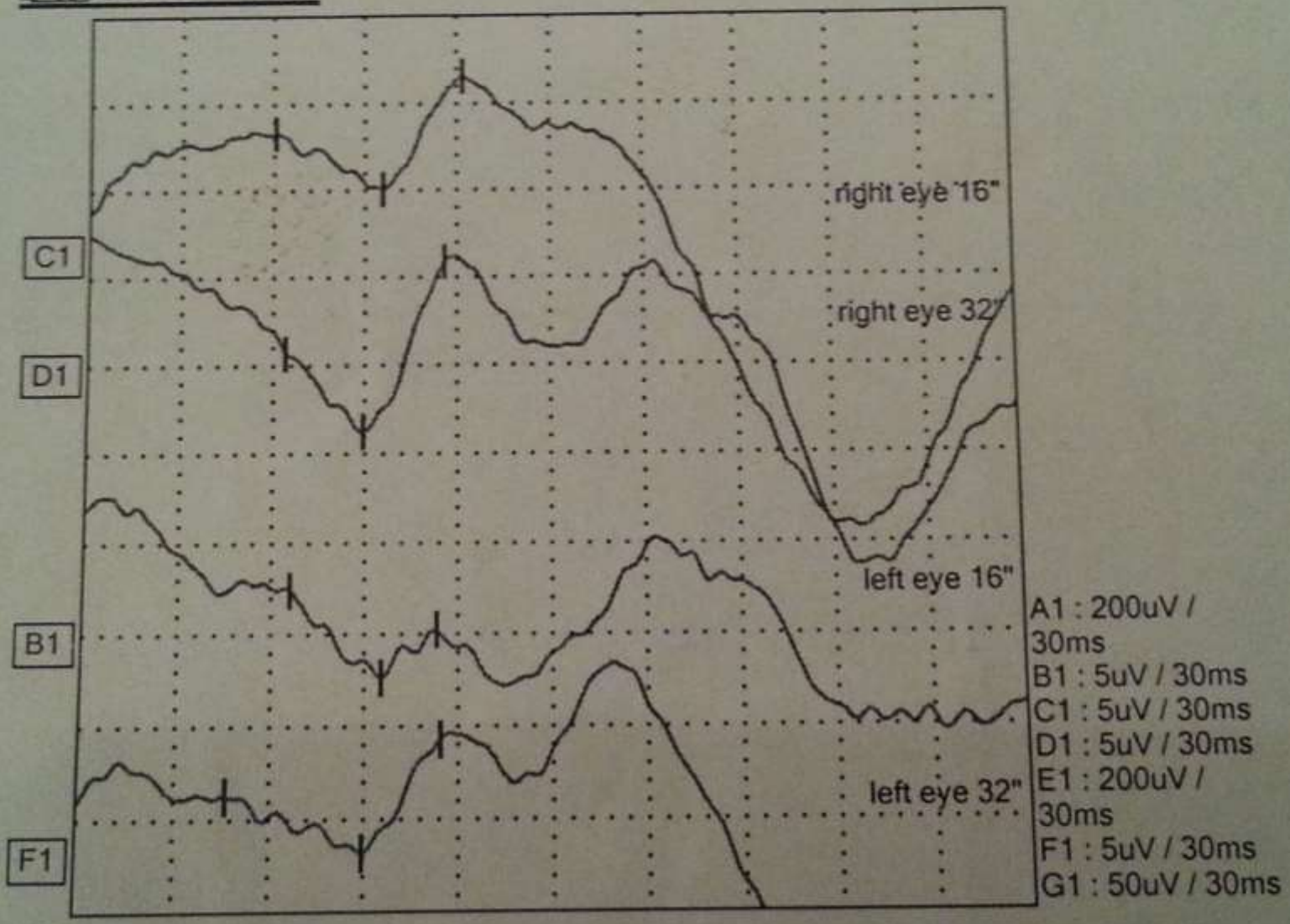
Pattern-VEP


right eye 16"
right eye 32"
left eye 16"
left eye 32"
C1
D1
B1
F1
A1 : 200uV / 30ms
B1 : 5uV / 30ms
C1 : 5uV / 30ms
D1 : 5uV / 30ms
E1 : 200uV / 30ms
F1 : 5uV / 30ms
G1 : 50uV / 30ms

INVESTIGATIONS

CSF examination

Clear

Culture and sensitivity: NEGATIVE

Pressure: 300

Protein 2.4 mg/ dl

Cells 50 of mixed cellularity

Glucose<30mg / dl

Chlorides ↓ 107mmol / l (N: 118 – 132)

INVESTIGATIONS

CSF examination

Sodium 133 mmol / l (N: 138 – 150)

Potassium 3 mmol / l

INVESTIGATIONS

- **What is next investigation to be requested at this time:**

1. Viral serology.
2. Tuberculine test.
3. Toxicology screen.
4. Brucella and widal test.
5. Auto immune profile.
6. Bone marrow biopsy.

INVESTIGATIONS

- **Toxicology screen:**
- Barbiturates : Negative
- Cannabinnoids : Negative
- Benzodiazepines : Negative
- Tramadol : Negative
- Amphetamines : Negative
- Opiates : Negative

INVESTIGATIONS

Virology

- **HSV I IgM: 0.36 U / mL (Negative)**
- **HSV I IgG : 155.6 U / mL (positive >25)**
- **HSV I Ig G: 154.6 U / mL (positive >25)**

CMV, EBV : Negative

INVESTIGATIONS

TYPHOID TEST: Negative

WIDAL TEST : Negative

- **ANA :** Negative

- **TUBERCULIN TEST**: Negative

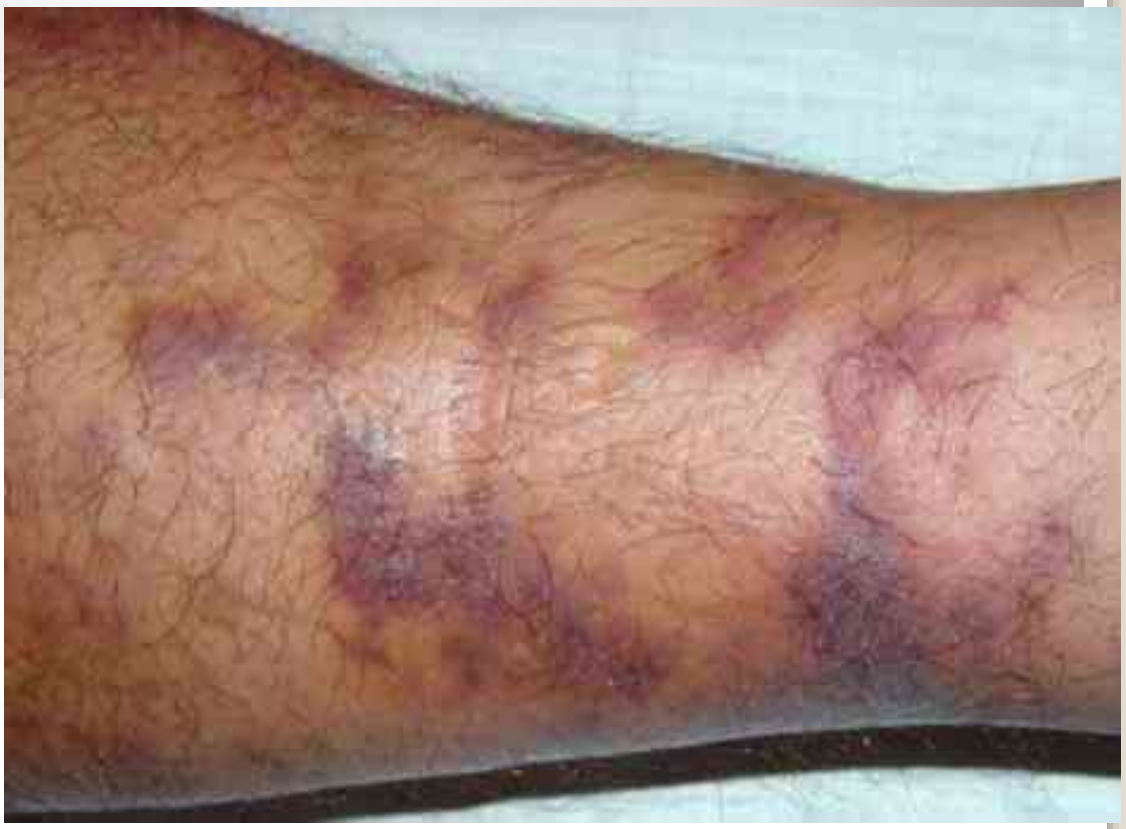
TREATMENT

- **What is your suggested line of treatment at this particular time**

1. Acyclovir
2. Pulse steroids
3. Plasma exchange
4. IV Ig
5. None of the above

Skin lesion

- Dermatological consultation requested biopsy from the lesion.

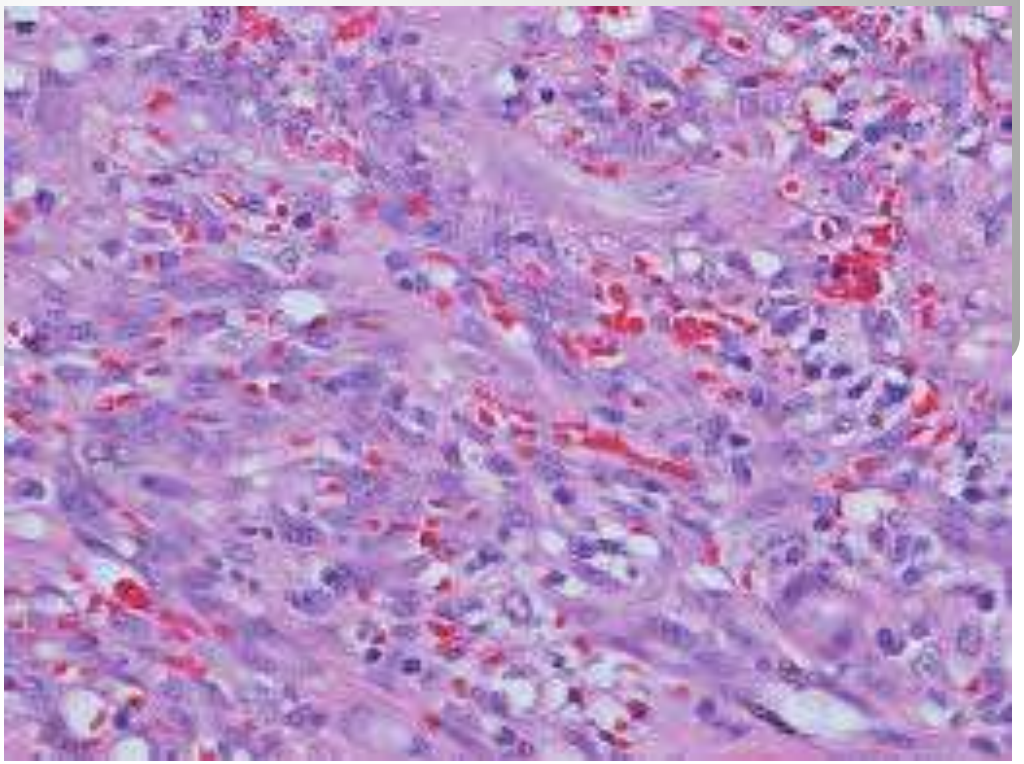


Skin lesion

- Biopsy was taken

that revealed:

Kaposi sarcoma.



HIV Antibody TESTING **POSITIVE**

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Neurological complications of HIV

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Neurological complications of HIV

Neurological impairment can occur through several routes:

1. As a result of opportunistic infections
2. As a result of HIV related malignancies
3. As a result of autoimmune disorders
4. Directly related to the action of HIV (can be CNS or PNS related)
5. Multifactorial / drug related / not understood

Neurological complications of HIV

Opportunisitic infections with CNS involvement

- PML
- Cerebral toxoplasmosis
- Meningitis (Cryptococcyl meningitis, TBmeningitis)
- Encephalitis (CMV, HSV, VZV)
- Neurosyphilis

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Neurological complications of HIV

HIV related malignancies with nervous system involvement

- Primary lymphoma (most common)
- Kaposi's sarcoma with cerebral involvement (rare)
- Multiple lymphomas with either CNS (including spinal cord compression) or rarely PNS involvement (ie secondary CNS/PNS lymphomas)

Neurological complications of HIV

<u>Autoimmune disorders with PNS involvement</u>

- Guillain-Barré Syndrome (GBS)
- Inflammatory Demyelinating Polyneuropathy (IDP)

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Neurological complications of HIV

Direct action of HIV:

- AIDS Dementia Complex (ADC) or HIV Associated Dementia (HAD).
- Distal Symmetrical Polyneuropathy (DSPN)
- Mononeuritis multiplex
- Vacuolar Myolopathy

Neurological complications of HIV

<u>Multifactorial / drug related / not understood</u>

- Neuromuscular weakness syndrome.
- Role of drugs in peripheral neuropathy.


THANK YOU