

Psychiatric manifestation of Neurometabolic disorder



FROM 4TH MEDICAL UNIT
CHIEF :DR.G.BAGIALAKSHMI
ASST: DR.P.SARAVANAN
DR.KRISHNASAMY PRASAD

PRESENTER- DR.BHASKAR



- 16 yr old boy presented with 1 episode of seizure, generalized tonic-clonic type.
- Fever-2 days ,low grade and intermittent.
- H/o behavioural disturbance - 3 months in the form of emotional lability, excessive laughing ,impulsiveness, and picking up fights with friends.
- H/O poor scholastic performance- difficulty in completing task, impaired memory, shortened attention span and difficulty in writing.
- H/O slurring of speech.



- No history of suicidal thoughts, deliberate self harm.
- No history of visual or auditory hallucination.
- No history of involuntary movements .
- No history of Altered gait or swaying .
- No history of vomiting ,headache ,blurring of vision.
- No history of weakness of limbs, abnormal posturing or symptoms suggestive of cranial nerve involvement.



- No history of cough with expectoration ,breathlessness and hemoptysis.
- No history of loose stools ,abdominal pain.
- No history burning micturition ,decreased urine output and hematuria or any other discoloration of urine.
- No history of joint pain , joint swelling and deformities.
- No history of earache, ear discharge, nasal obstruction..
- No history of jaundice , abdominal distension and pedal edema

Past history



No similar complaints in past

Not a known case of Epilepsy, Rheumatic fever, nephrotic syndrome ,diabetes mellitus and any other comorbidities.

No previous surgeries

No chronic drug intake

Developmental history

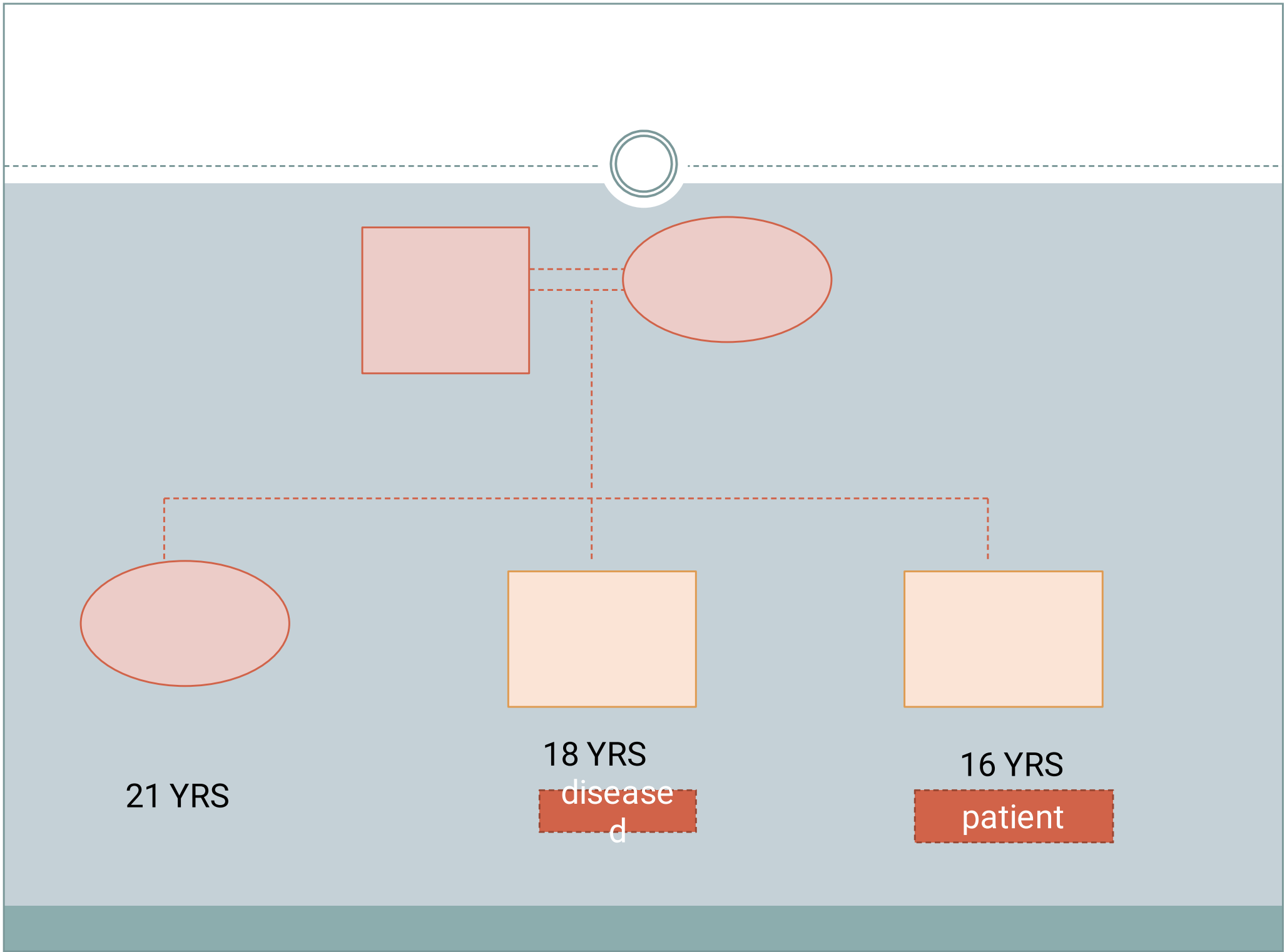


- Born to consanguinous parents, Full term normal vaginal delivery
- No history suggestive of birth asphyxia.
- Developmental milestones normal.
- Studied with proper scholastic performance till 3 months ago(now studying at 11th std).

Family history



- 3 children, elder sister healthy studying Bsc nursing aged about 21 yrs.
- Elder brother aged about 18 yrs suffering from neurological disorder since 5 yrs, details were not available at the time of admission.
- N/H/O similar illness in parents and grand parents.



Personal history



- Sleep pattern –normal
- Appetite –good
- mixed diet
- N/H/O substance abuse/ addictions

Treatment history



- Parents initially sought medical help at a nearby govt hospital . He was suspected as ?seizure disorder and referred to our hospital for further evaluation.

General physical examination

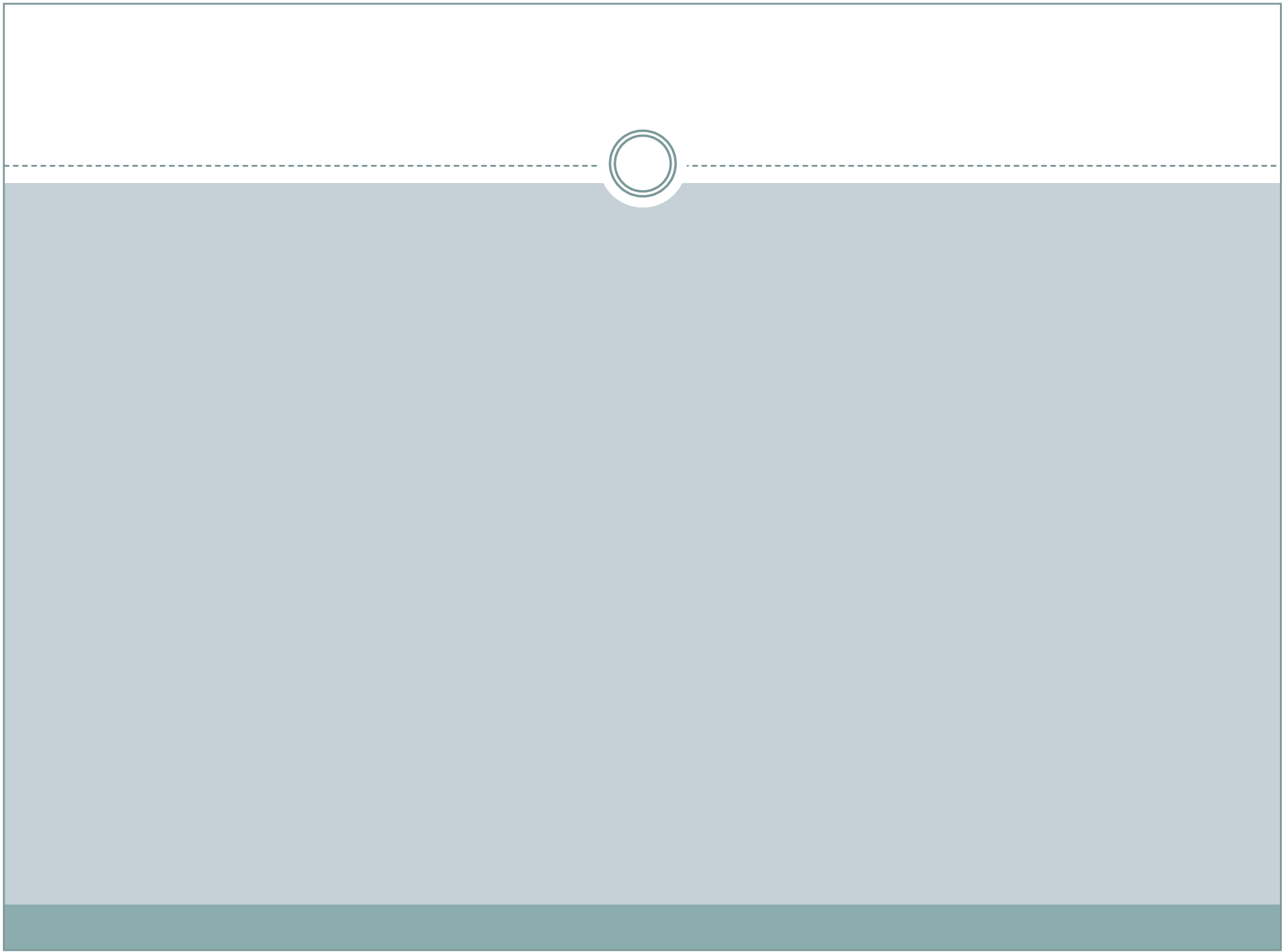


- Patient was drowsy poorly obeying oral commands afebrile.(post ictal state).
- No pallor
- Not icteric
- No cyanosis and clubbing
- No generalised lymphadenopathy
- No pedal edema.

No external markers of Tuberculosis, HIV or any other neuro cutaneous markers

Thyroid –normal

Secondary sexual characters-normal



Central nervous system



- Higher mental function

Right handed individual.

oriented to time ,place and person.

speech - Dysarthria present.

memory-remote memory impaired

intelligence- calculation impaired.

Motor system



- Bulk

	Right(cm)	Left(Cm)
Fore arm	19	19
Arm	24	24
Thigh	35	35
Legs	24	24



Tone

	right	left
UL	normal	normal
LL	normal	Normal

Power

	right	left
Upper limb	5/5	5/5
Lower limb	5/5	5/5



Deep Tendon Reflexes

Upper limb	right	left
Biceps	+	+
Triceps	+	+
Supinator	+	+
Knee	+	+
Ankle	+	+
Clonus	-	-

Superficial reflexes



	right	left
corneal	+	+
conjunctival	+	+
abdominal	+	+
plantar	flexor	flexor

Cerebellar system



- Finger nose test
- Finger - finger nose test
- Heel-knee test
- Dysdiadokinesia – **present bilaterally**
- Tandem walking – **impaired**
- **Horizontal Nystagmus** present
- .

Impaired



- No involuntary movements
- Spine cranium normal
- Fundus : B/L normal.
- Sensory system –**normal**
- Signs of meningeal irritation
terminal neck stiffness-present



P/A - soft

non tender

no organomegaly

CVS - S1 and S2 heard normally.

no murmurs.

RS - normal vesicualr breath sounds ,
no added sounds.



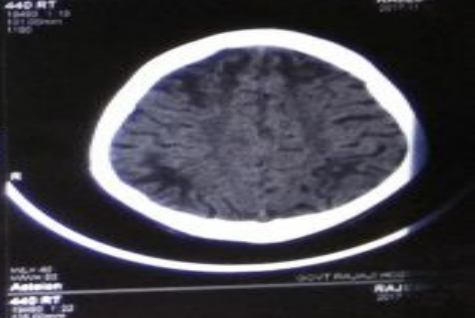
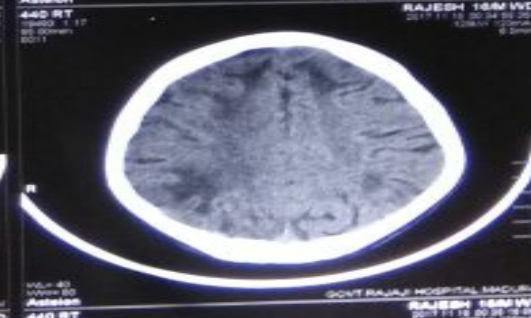
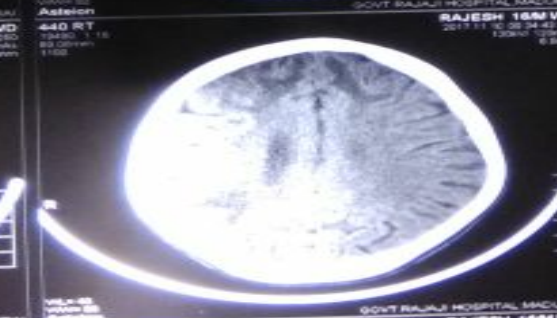
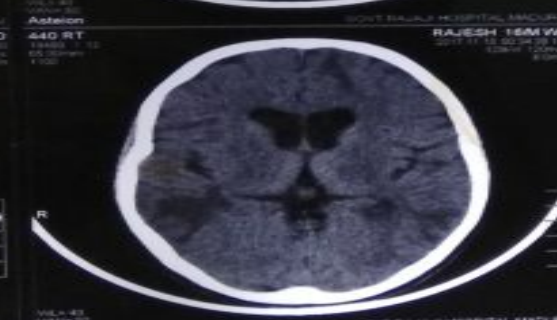
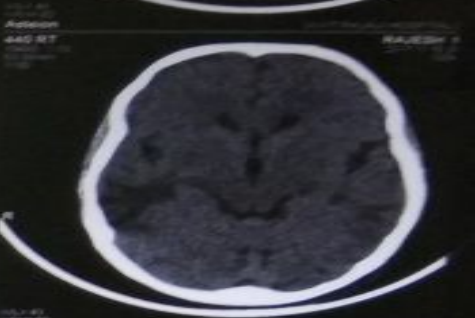
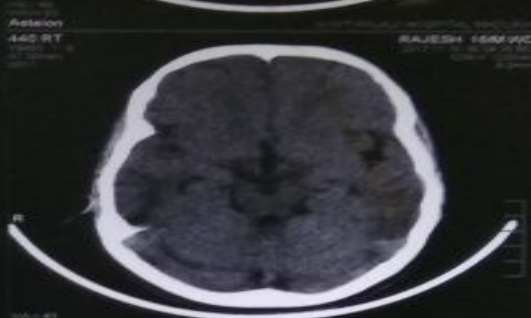
- Young adolescent male with SLOWLY PROGRESSIVE behavioural disturbances
- New onset seizure
- cerebellar signs bilaterally.

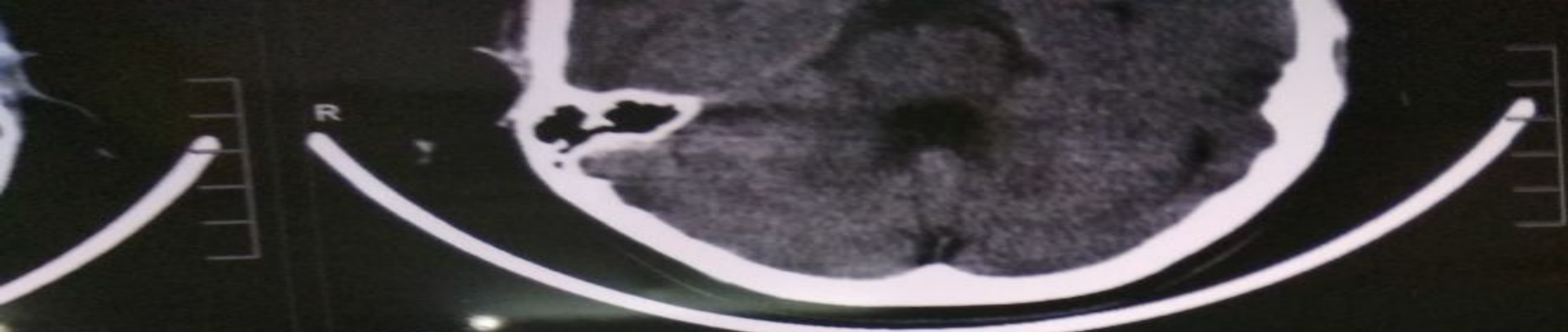
For clinical discussion

Expert opinion at admission



- **Seen by duty Neurophysician:**
 - New onset seizures with altered behaviour
 - Meningo-encephalitis
 - Rule out ?Tuberculous meningitis
 - Advised MRI brain





R

R

WL= 40
WW= 80
Asteion

GOVT RAJAJI HOSPITAL, MADURAI

GOVT RAJAJI HOSPITAL, MADURAI
RAJESH 16M WD
2017.11.10 00:34:38.100
120kV/ 120mAs
6.0mm

440 RT
19490: 1: 12
65.00mm
1100

RAJESH 16M WD
2017.11.10 00:34:38.100
120kV/ 120mAs
6.0mm

WL= 40
WW= 80
Asteion

440 RT
19490: 1: 13
71.00mm
0011



R

R

WL= 40
WW= 80
Asteion

GOVT RAJAJI HOSPITAL, MADURAI

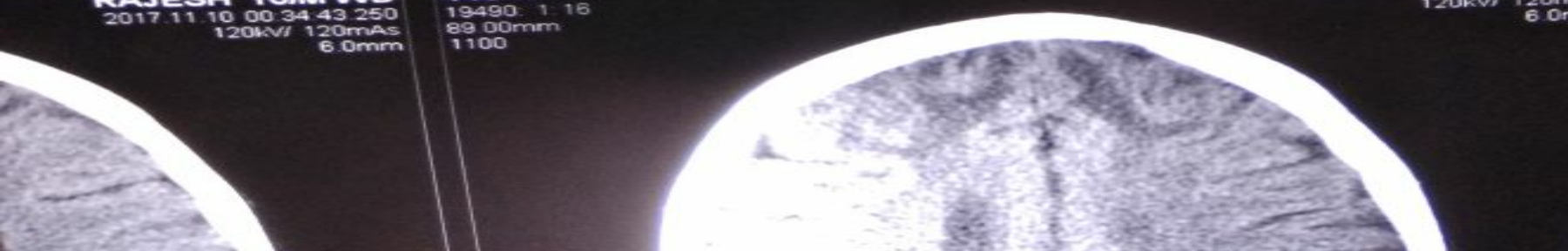
GOVT RAJAJI HOSPITAL, MADURAI
RAJESH 16M WD
2017.11.10 00:34:43.250
120kV/ 120mAs
6.0mm

440 RT
19490: 1: 16
89.00mm
1100

RAJESH 16M WD
2017.11.10 00:34:43.250
120kV/ 120mAs
6.0mm

WL= 40
WW= 80
Asteion

440 RT
19490: 1: 17
95.00mm
0011



Investigation



Hb-10.8 g/dl

Total count-6500 cells/cumm

Differential count-N-67%,L-25%,M-8%.

ESR-28 mm/hr

PCV-35%.

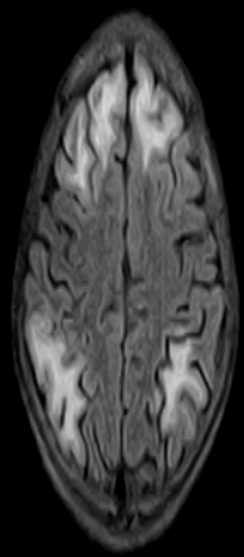
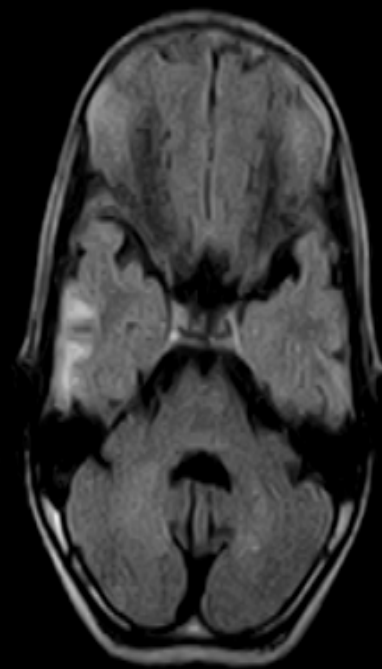
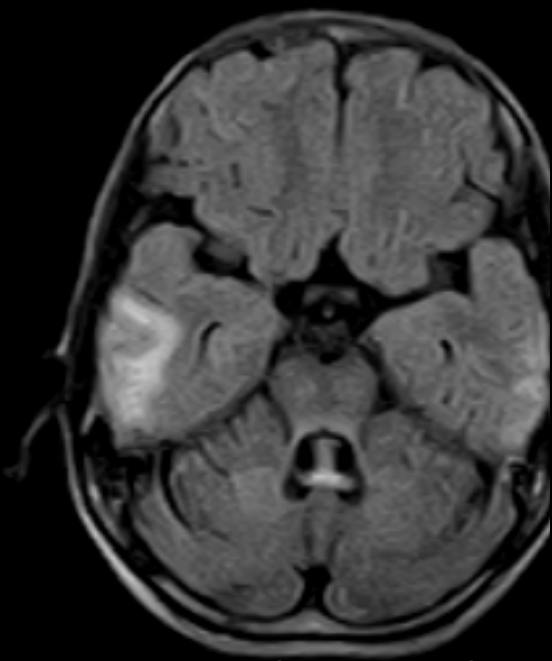
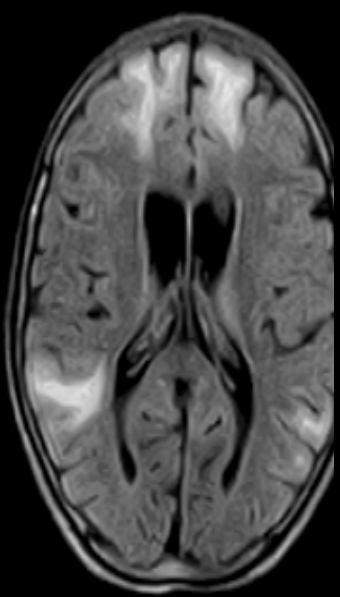
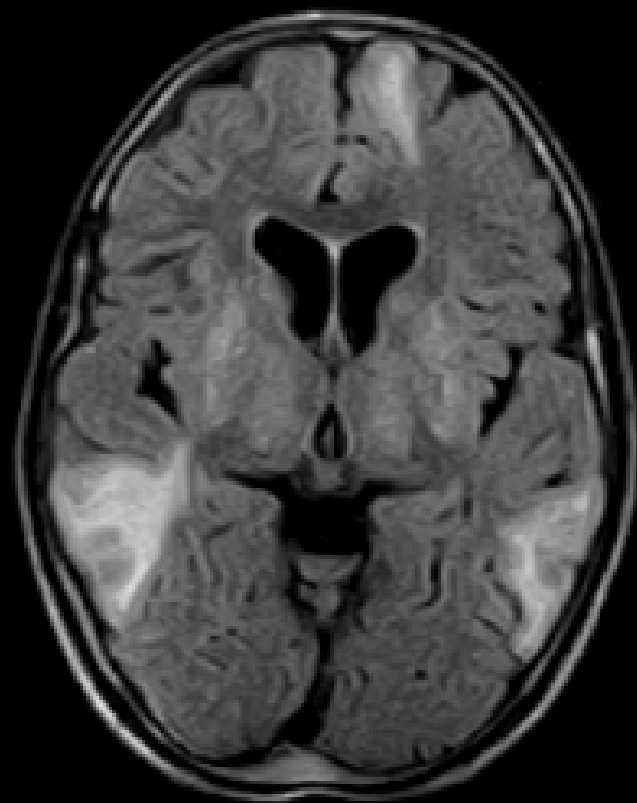
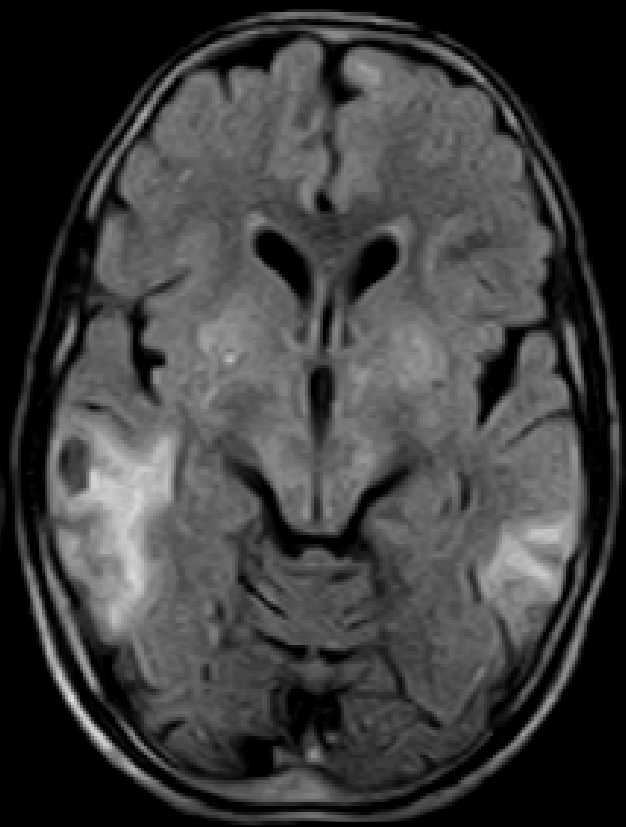
Platelets-1.86lakhs/cumm.

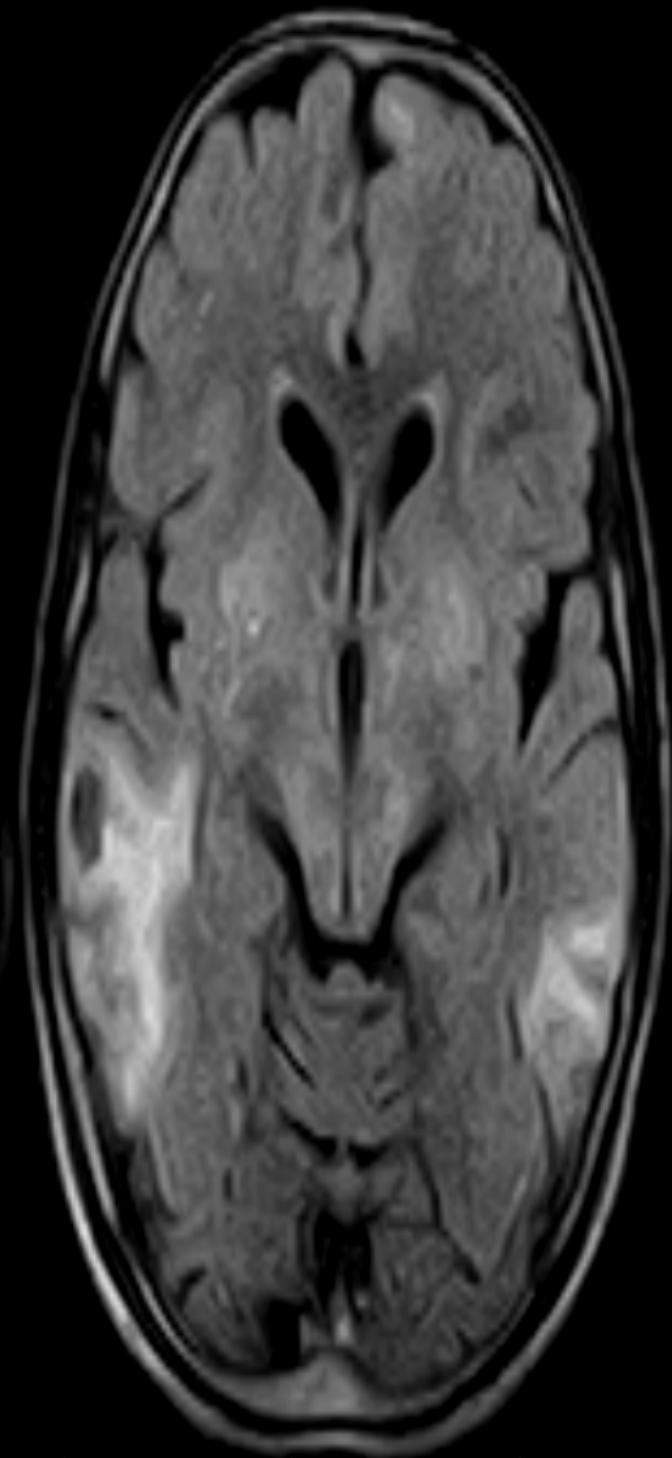
INVESTIGATIONS

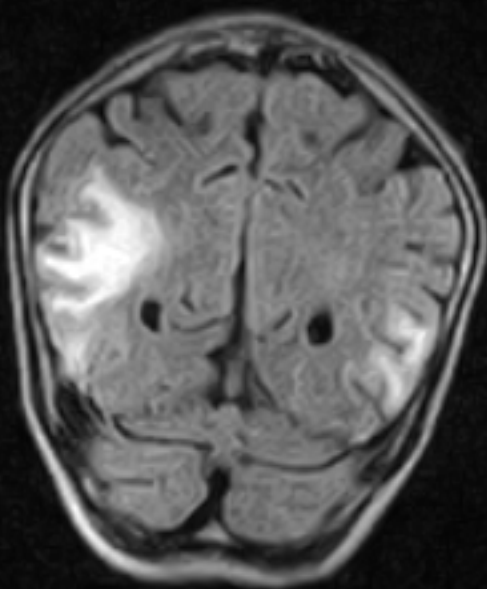
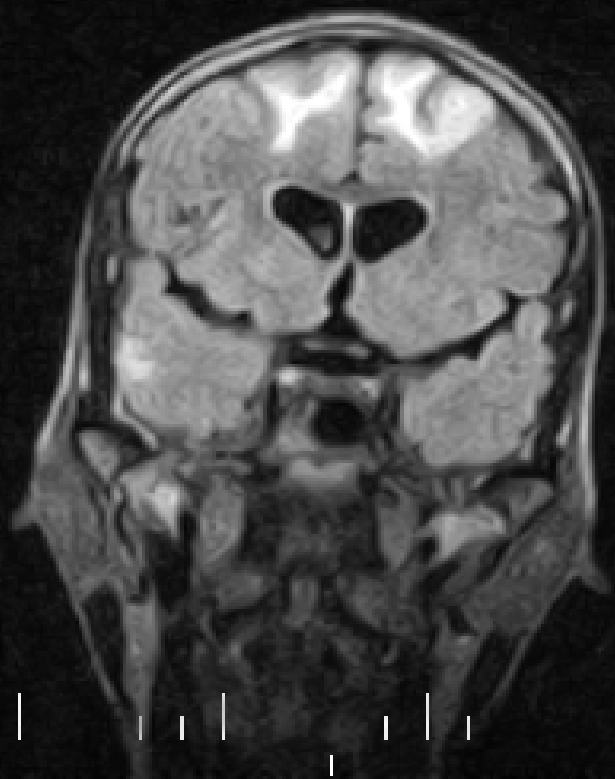
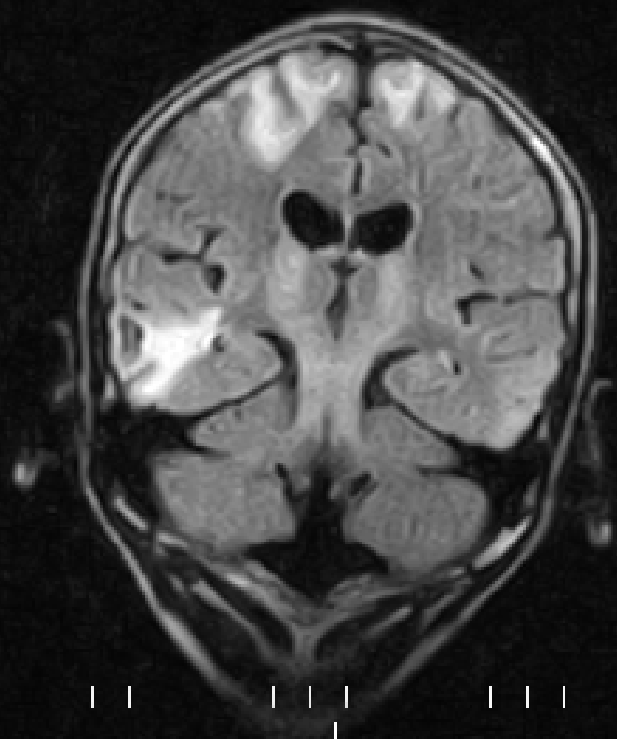


- RBS-104 mg/dl
- Urea-20 mg/dl
- Creatinine-0.8 mg/dl HIV-nonreactive
- Total bilirubin-0.4mg/dl
- Direct -0.2 ,indirect -0.2 mg/dl
- Urine routine
 - alb-nil
 - sugar-nil
 - deposits -2-3 cells.

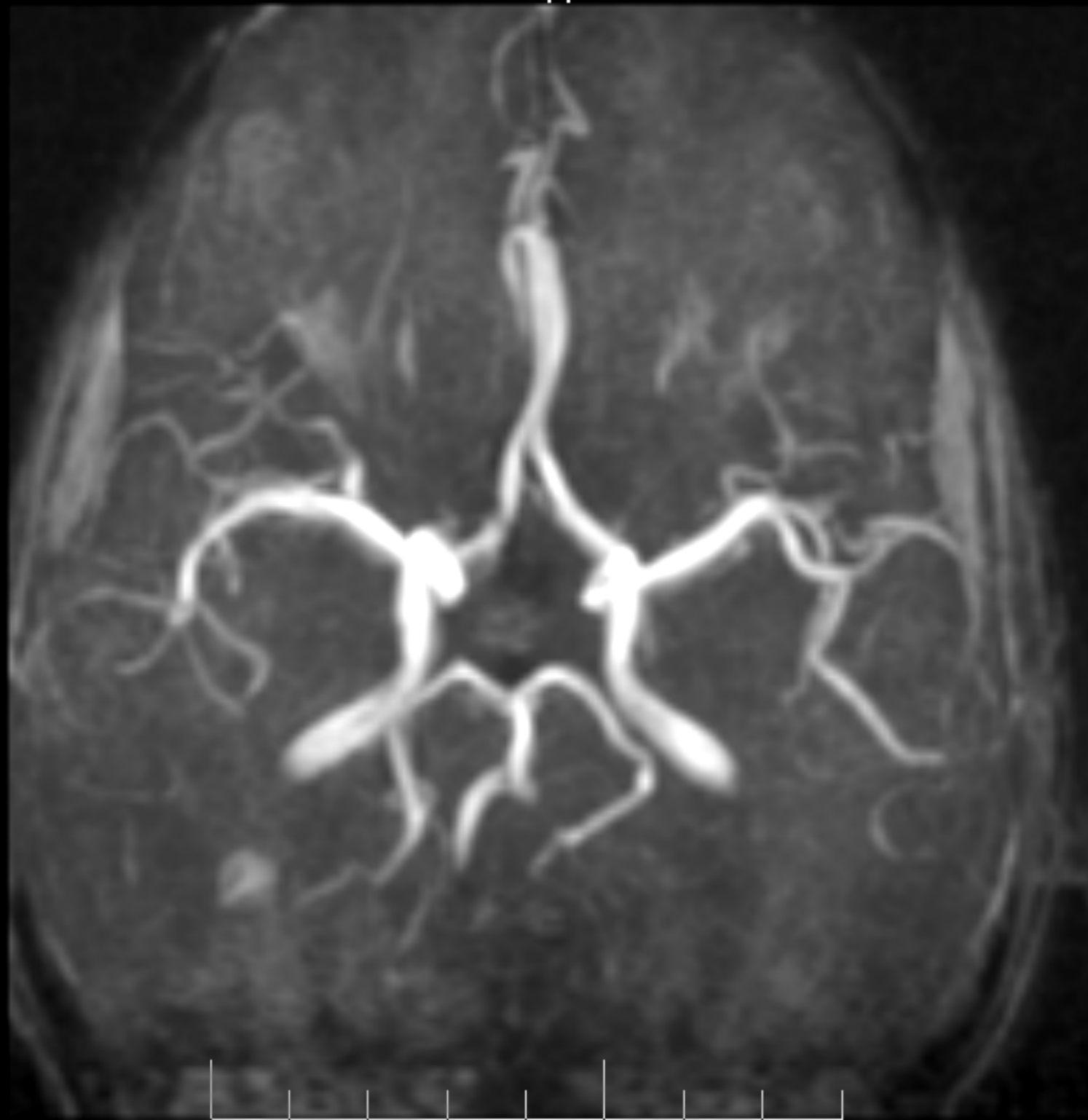
● Serum protein T 6.2g/dl

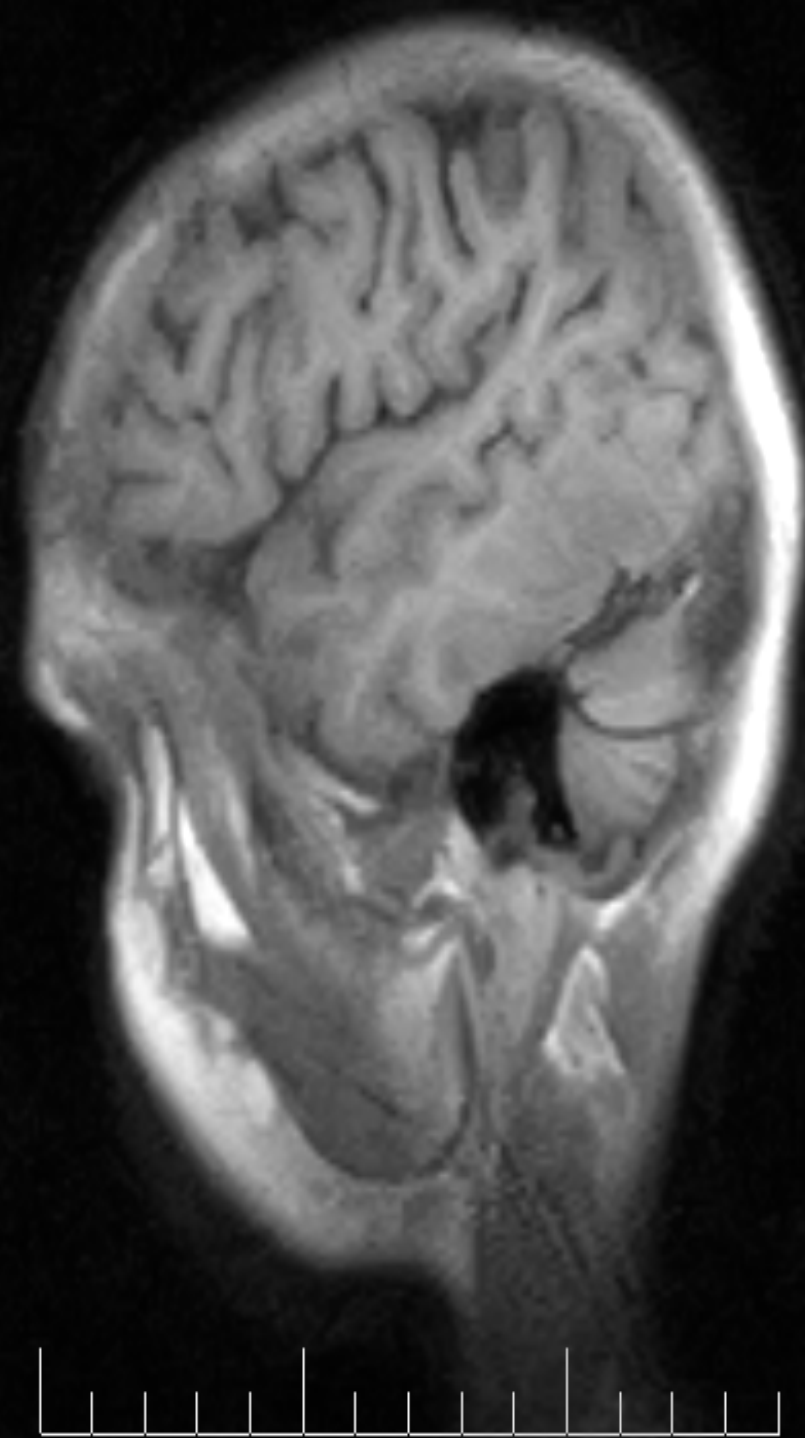


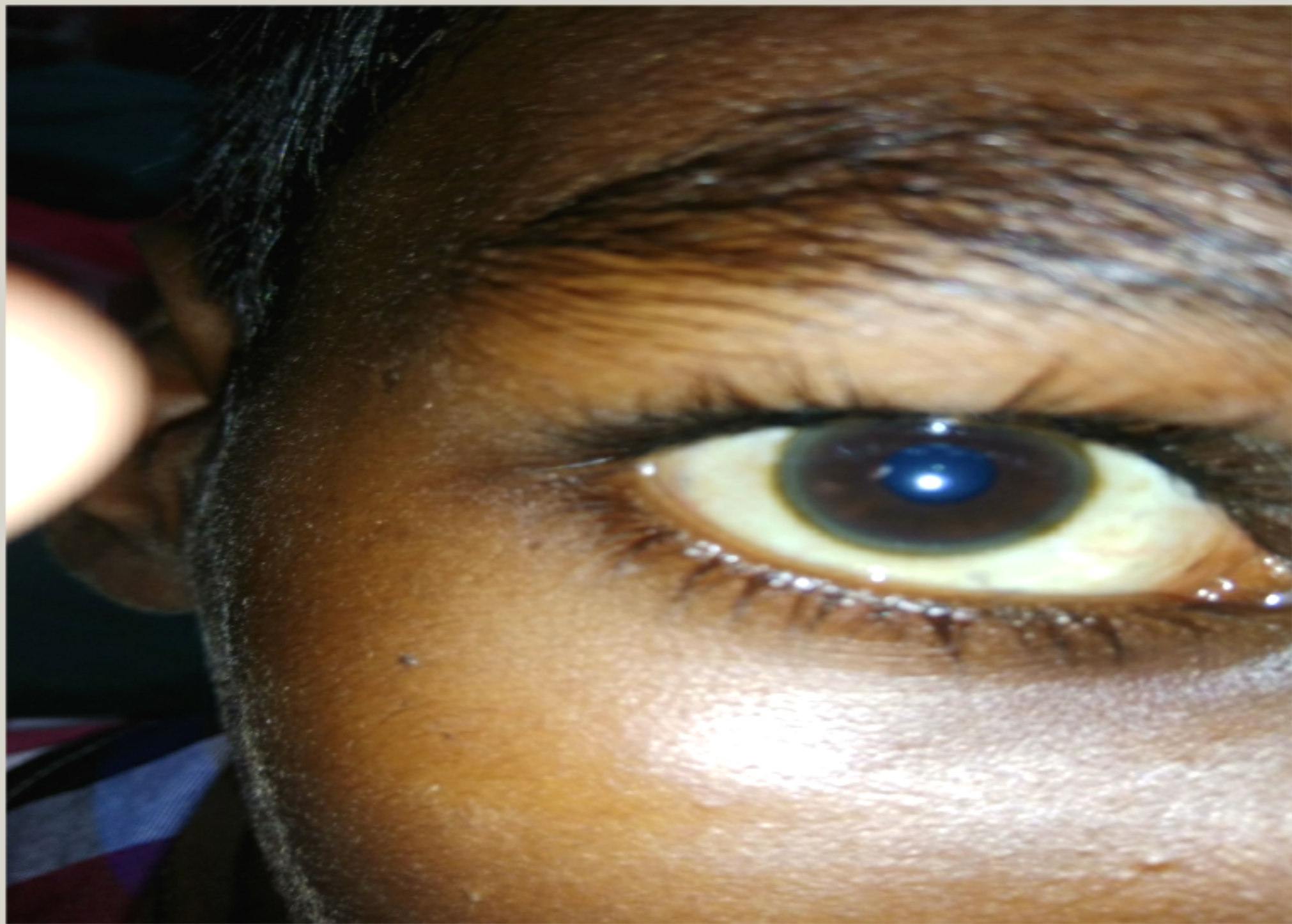




A









- Ophthalmologist opinion obtained-
Bilateral **KAYSER –FLEISHER RING** by slit lamp examination .

Slit Lamp





● USG ABDOMEN :

- Liver : 9cm, altered echos
- Pv : 9.9 mm, velocity – 13cm /sec, normal flow
- Spleen 10.1 cm
- Kidneys
- Spleen
- Bladder
- **Impression-parenchymal Liver Disease.**

normal



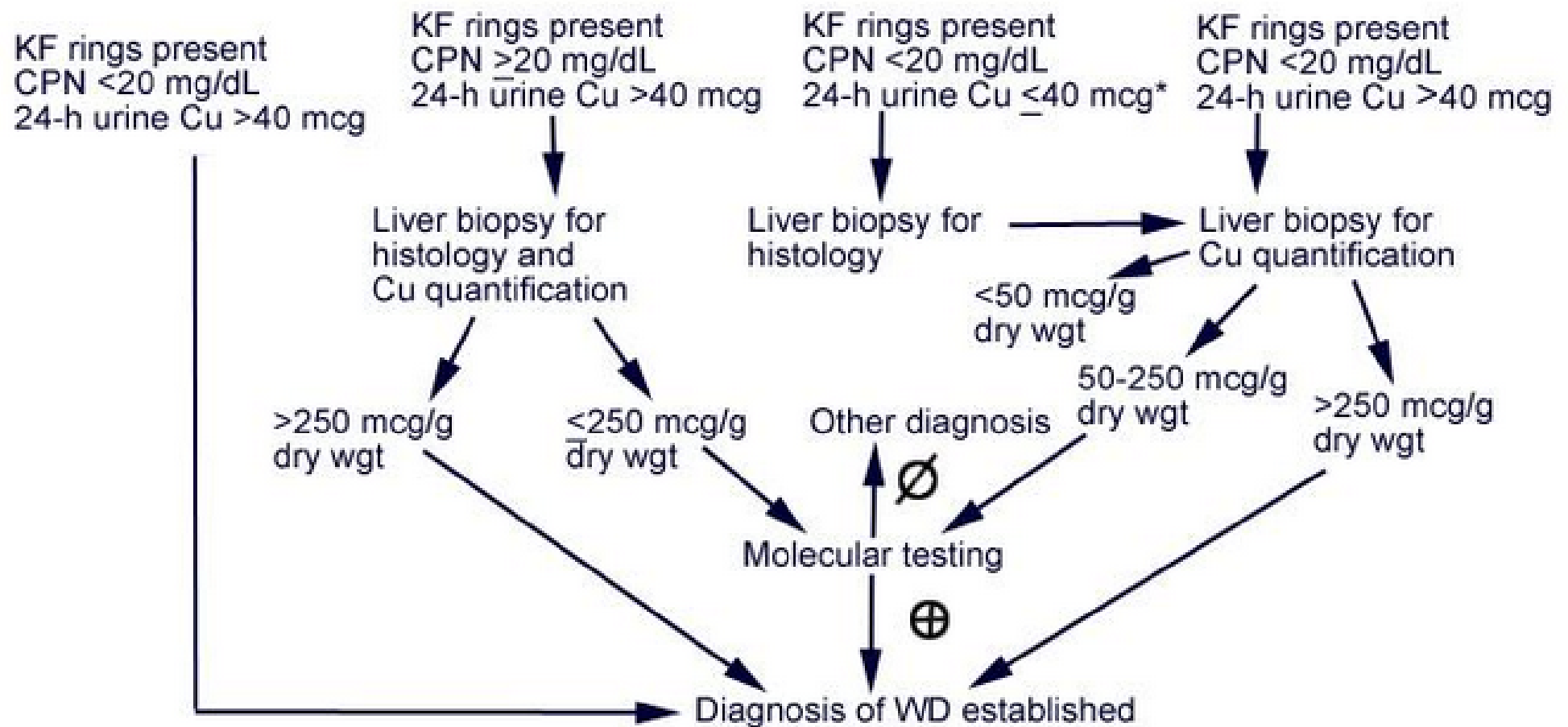
- Serum ceruloplasmin : 14.8 mg %.
- 24 hr urine copper : 292.52 ug /day.

**WILSON' S DISEASE with neuro psychiatric
manifestation .**



- Neurologist review obtained
- Advised T. zinc acetate 50 mg BD
- T. D-penicillamine 250 mg BD
- T.phenytoin 100 mg 2Hs.

Serum ceruloplasmin
(CPN); 24-h urinary Cu; slit lamp examination





● ***Thank you***