Grand Round Presentation

20 years old male with prolong fever and altered level of consciousness.

Dr. Shabbir Mahmud
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DMCH.

Particulars of the patient

Name	Mr. Ramjan
Age	20 years
Occupation	Student
Religion	Islam
Marital status	Unmarried
Address	Narayanganj
Date of admission	24/11/2024
Date of examination	25/11/2024

Chief complaints

- Low grade fever for 1.5 months.
- Cough with sputum production for 1.5 month.
- Altered level of consciousness for 3 days.

Present illness

According to the statement of patient and his attendant, he was reasonably well 1.5 months back. Then he developed fever which was intermittent in onset, low grade in nature, not documented. Fever was not associated with chills & rigor or any sweating at night or during subsidence. Fever was resolved by taking antipyretics.

Present illness

He also complained of cough, which was

- Non-productive initially.
- After a few months, it became productive.
- Had no seasonal and diurnal variation
- Was not associated with mixed of blood

Cough was associated with sputum production which was scanty in amount, frothy appearance without any foul smell.

Present illness

With these complaints the patient went to local upzilla health complex and diagnosed as a case of smear positive pulmonary tuberculosis and treated accordingly.

Present illness

Within 3rd day of starting anti-TB drugs patients developed sudden altered level of consciousness. Then he got admitted in DMCH.

During admission,

- GCS was 8/15
- Bedside RBS was 5.2 mmol/L
- Unconsciousness was not associated with diarrhoea, vomiting, neck rigidity & convulsion.

Present illness

He has no history of yellow discolouration of skin and sclera, and reduced urine output. He has no history of taking particular drugs (except anti-TB). After proper resuscitation in admission, patient was evaluated both clinically and biochemically. Then patient was treated accordingly.

Present illness

After regain of consciousness, patient developed weakness in all four limbs. Which was:

- Sudden in onset, static
- Without definite sensory level
- Stiffness on flexion or extension.
- Unable to stand or walk without helping hand.

Present illness

On query, patient complaints of long-standing headache. Which was dull in nature, aggravated during stress, not associated with vomiting, photophobia, phonophobia & focal neurological symptoms. Patient also complained of urinary incontinence which was not associated with burning micturation & constipation. He has no history of trauma in the spine & pelvic region.

Present illness

He has no history of previous similar attacks. He has no history of red eyes, joint pain, rash and muscle wasting. He has normal bowel habits but reduced appetite with unintentional weight loss.

History of past illness

- No significant past medical and surgical history
- No history of close contact with TB patients

Family history

- No history of similar illness in her family.
- No family history of consanguinity.

Personal history

- Does no smoke or use any tobacco product
- No history of alcohol intake
- No history of unprotected sexual exposure

Travel history

- No history of travelling in abroad, malaria, kala-azar & Nipah virus endemic area.

Immunisation history

He got vaccinated:

- With EPI scheduled vaccines
- Covid-19 (3 doses) vaccine
- No history of influenza or pneumococcal vaccination.

Socioeconomic history

- Comes from middle class family
- Lives in a pacca house with 4 family members
- Drinks arsenic free water

Examination

General examination

Appearance	Ill-looking
Body build	Below average
Co-operation	Co-operative
Decubitus	Lying position
Jaundice	Absent
Anemia	Mild
Oedema	Present (+)

Cyanosis	Absent
Clubbing	Absent
Koilonychia	Absent
Leukonychia	Absent
Bony tenderness	Absent
Pigmentation	Absent
Dehydration	Absent

General examination

Blood pressure	100/70 mmHg on supine position. 90/50 mmHg on standing position.
Pulse	88 bpm, regular & normal volume
Temp.	99-degree F.
Respiratory rate	18 breath/min
SpO2	97% at room air

JVP	Not raised
Accessible Lymph node	Not enlarged
Thyroid gland	Not palpable
Bedside urine dipstick test	No glycosuria, no proteinuria.

Nervous system examination

Higher psychic function:

- Oriented in time place and person
- Memory: Intact. (both recent & past)
- Speech: Slowness on pronunciation, no slurring & dysarthria.

All cranial nerves: intact

Fundus examination: normal

Sign of meningeal irritation: absent

Nervous system examination : Motor function

Upper limbs

- Bulk : Normal (B/L)
- Tone: increased (B/L)
- Power: 4/5 (B/L)
- Reflexes: Exacerbated (B/L)
- Hoffmann sign: Positive

Lower limb

- Bulk : Normal (B/L)
- Tone: increased (B/L)
- Power: 3/5 (B/L)
- Reflexes: Exacerbated (B/L)
- Planter: Right - withdrawal
  Left - extensor

Nervous system examination

- Coordination in all limbs are: intact
- Gait: Waddling
- There is no spinal deformity

Sensory system examination

- Sensory modalities of all limbs are normal without definite sensory level.

Respiratory system examination

Inspection

- Respiratory rate: 18 breaths/ min
- Chest movement: Not restricted symmetrically
- No scar mark, visible deformity, visible impulse or engorged vein.
- No suprasternal, supraclavicular or intercostal recession.

Respiratory system examination

Palpation

- Trachea: centrally placed
- Apex: normal in position
- Chest expansion: normal
- Vocal fremitus: normal

Respiratory system examination

Percussion:

- Resonant: Bilaterally

Auscultation:

- Breath sound: Vesicular
- Added sound: Inspiratory crepitations in lower zone of both lungs & altered with cough.
- Vocal resonance: normal.

Precordium examination:

Inspection

No visible deformity, pulsation & scar marks.

Palpation

Apex beat is located at the 5th intercostal space, 9 cm from the midline, normal in character.

Auscultation

1st and 2nd heart sound are normal in all area. No added sound.

Other systemic examination

Revealed no abnormalities

Salient Features:

Mr. Ramjan, 20 years old student hailing from Narayanganj admitted in this hospital on 24th November 2024 with the complaints of fever and cough for 1.5 months and altered level of consciousness for last three days. He developed fever which was low grade in nature, intermittent, gradual in onset, not documented. Fever was not associated with chills & rigor or profuse sweating.

Salient Features:

He also complained of cough, which was non-productive and frequent in first 1 month. The cough became productive for last 15 days. With these complaints the patient went to local upzilla health complex and diagnosed as a case of smear positive pulmonary tuberculosis and treated with anti-TB drugs.

Salient Features:

Within 3rd day of starting anti-TB drugs patients developed sudden altered level consciousness, he admitted in this hospital. During admission GCS was 8/15, RBS was 5.2 mmol/L. It was not associated with diarrhoea, vomiting, headache, neck rigidity & convulsion. After proper resuscitation in admission, patient was treated accordingly.

Salient Features:

After regain of consciousness, patient developed weakness in all four limbs. Which was sudden in onset, static, stiffness present on flexion or extension. There was no definite sensory level.

On query, patient complaints of long-standing headache. Which was dull in nature, aggravated during stress, not associated with vomiting, photophobia, phonophobia & focal neurological symptoms.

Salient Features:

Patient also complained of urinary incontinence which was not associated with burning micturation & constipation. He has no history of trauma in the spine & pelvic region. He has normal bowel habits with reduced appetite.

Salient Features:

On general examination, patient is mildly anemic, bipedal edema present. No lymphadenopathy & thyromegaly. Fundoscopy examination revealed normal finding.

On neurological examination revealed, slowness of speech without slurred & dysarthric voice. On upper limbs: No visible muscle wasting. Muscle tone is increased bilaterally. Muscle power reduced bilaterally at 4/5. All reflexes are exacerbated.

Salient Features:

Hoffmann sign is positive. On lower limbs examination: muscle tone is increased both proximally and distally. There is no visible wasting, fasciculation. Muscle power is ⅗ bilaterally. All deep reflexes are exacerbated. Planter reflex extensor on left and withdrawal on right. Gait of this patient was waddling and the coordination was normal. There was novisible spinal deformity.

Salient Features:

Sensory modalities of all limbs are normal without definite sensory level. Other systems revealed no abnormality.

Problem list:

Fever and cough for 1.5 months

Spastic quadriparesis

A 20 years old male

Altered level of consciousness after taking anti-TB drugs

Chronic headache & Urinary incontinence

“What could be our diagnosis ?”

Provisional diagnosis is

Disseminated tuberculosis involving The lungs, CNS & Adrenal glands.

Differential diagnosis are:

- Intracranial space occupying lesion. (ICSOL)
- Neurosarcoidosis
- CNS lymphoma




INVESTIGATIONS

Complete blood count (CBC)

Parameter	Value (25.11.24)	Value (02.12.24)
Hemoglobin (Hb %)	8.1 g/dl	9.9 g/dl (after 1 unit blood transfusion)
RBC	2.99 million/Cmm	4.4 million/Cmm
WBC	7,500 /Cmm	4.800/Cmm
Platelet count.	260,000 /Cmm	3,10,000/Cmm
M.C.V	74.6 fL	82.1 fL
M.C.H	25.4 fL	28.5 fL
M.C.H.C	32.1 g/dl	34.7 g/dl
ESR	90 mm in 1st hour	60 mm in 1st hour

PERIPHERAL BLOOD FILM

RBC: Anisocytic anisochromic , majority cells are microcytic hypochromic with elongated cells.

WBC: Mature with above count and increased distribution of neutrophils

Platelet: Normal

Comments: Microcytic hypochromic anemia.

URINE RME

Parameter	25.11.24
Pus Cell	8-10/ HPF
RBC	12-15 (dysmorphic-nil)/ HPF
Epithelial cells	1-3/HPF
Albumin	Nil
Sugar	Trace

BIOCHEMISTRY

Parameter	25.11.24	02.12.24
S. Creatinine	0.75 mg/dL	1.02 mg/dL
S. Sodium (Na^+)	124 mmol/L	128 mmol/L
S. Potassium (K^+)	4.3 mmol/L	3.8 mmol/L
S. Chloride (Cl^-)	92 mmol/L	102 mmol/L
Bicarbonate (HCO-3)	24mmol/L	20 mmol/L

BIOCHEMISTRY

Parameter	25.11.24
S. Albumin	2.9 gm/dL
SGPT	42 U/L
SGOT	67 U/L
CRP	48.0mg/L
Anti-HIV (1+2)	Negative

BIOCHEMISTRY

Parameter	25.11.24
Dengue IgG	Negative
Dengue IgM	Negative
Serum Cortisol (morning)	20.60 ug/dl Morning before 10AM (4.5-22.68 ug/dl) Evening after 5PM (1.67-14.00 ug/dl)
ACTH	57.67 pg/mL (Normal range 5.00-46.00)

CSF STUDY

Parameter	25.11.24
Physical study	Colour: Straw
	Appearance : Clear
Microscopic examination	Total WBC count: 04
	Total RBC count : 0-2/ H.P.F
Neutrophil	00 %
Lymphocytes	80 %
AFB staining	AFB not found
Gram staining	No gram reactive bacteria are seen
Other cells	Monocytes 20 %

CSF STUDY

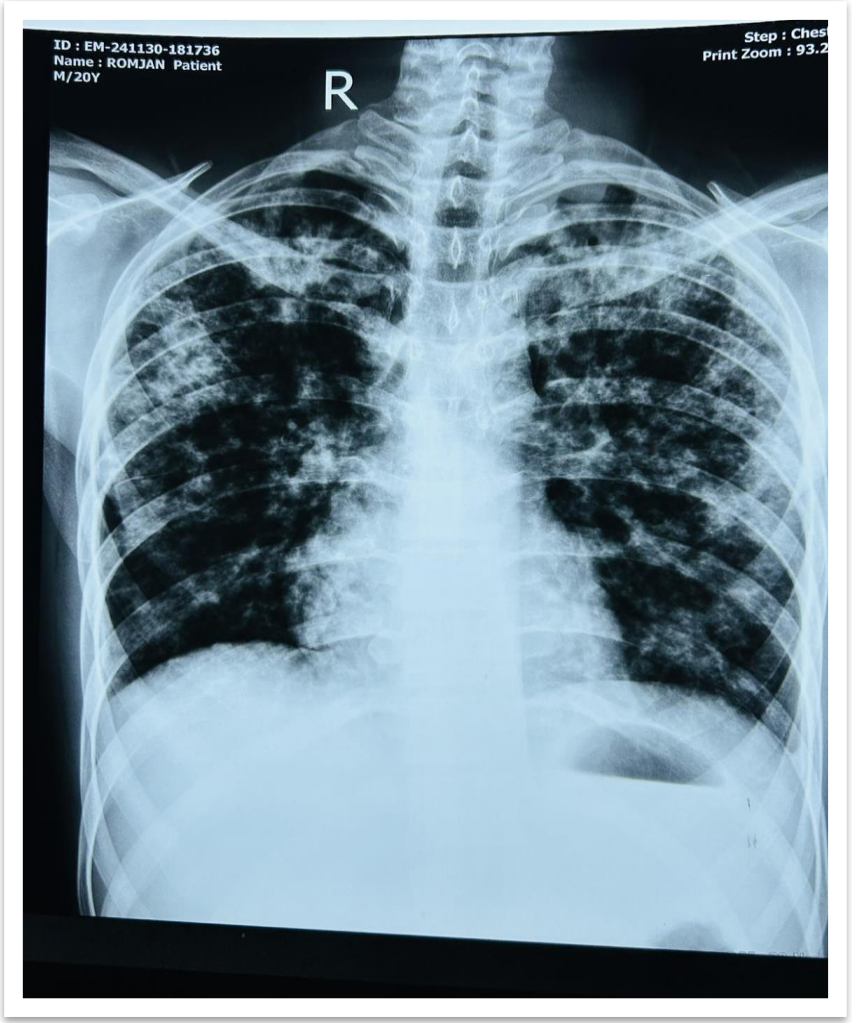
Parameter	25.11.24
Fluid for ADA	13.2 U/L
CSF Protein	118.03 mg/dL
CSF Glucose	41.76 mg/dL
CSF for GeneXpert	MTB not detected



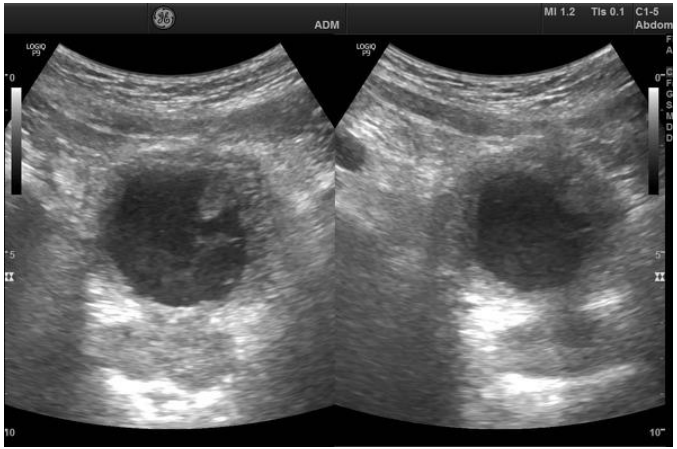

IMAGING

CHEST X-RAY P/A VIEW

- Inhomogeneous patchy opacity in upper, mid & lower zone of both lungs.
- Reduction of both lung volume.



USG OF WHOLE ABDOMEN



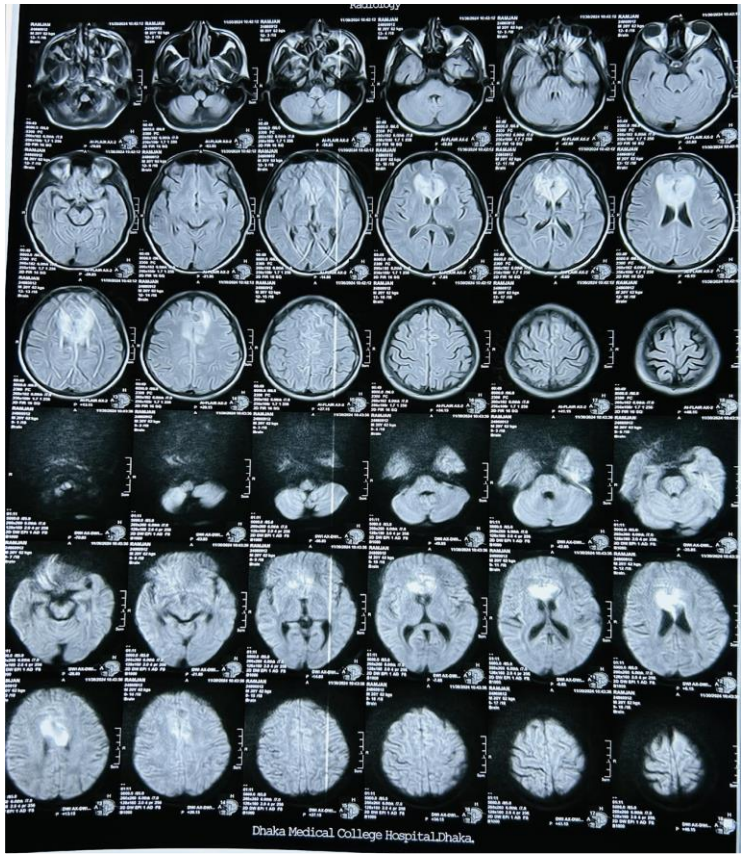
- LIVER: Normal in size
- SPLEEN: Spleen size is normal (9.9 cm)
- KIDNEYS: Both kidneys are normal in size
- URINARY BLADDER: Mild echogenic debris are seen within the urinary bladder.

COMMENT: Feature of cystitis.

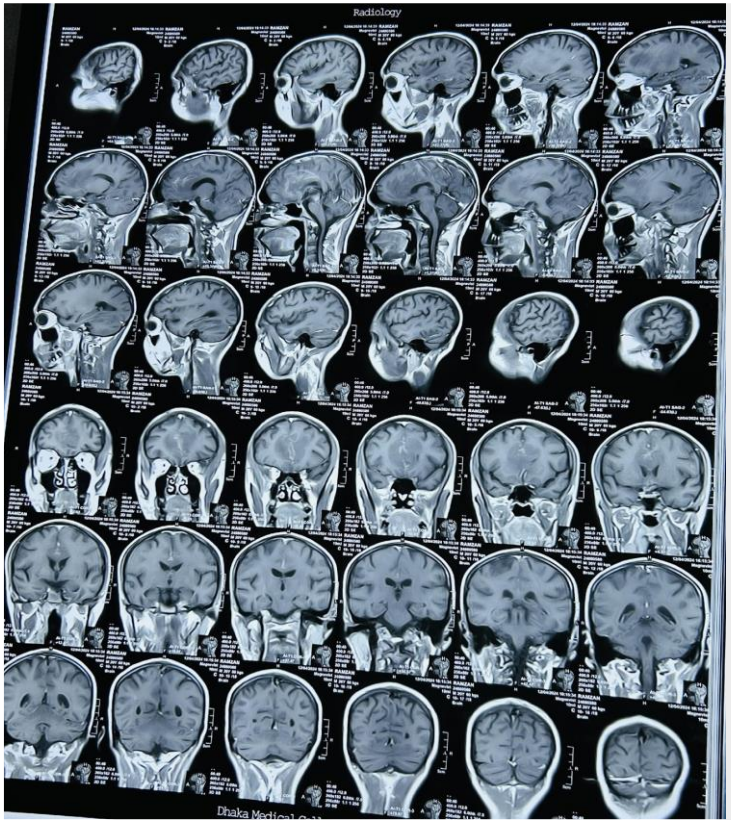
MRI OF BRAIN WITH SCREENING OF WHOLE SPINE

FINDINGS: A well defined poorly enhancing intra-axial mass type lesion is seen, which involving rostrum genu, part of the body of corpus callosum and portion of frontal lobe.

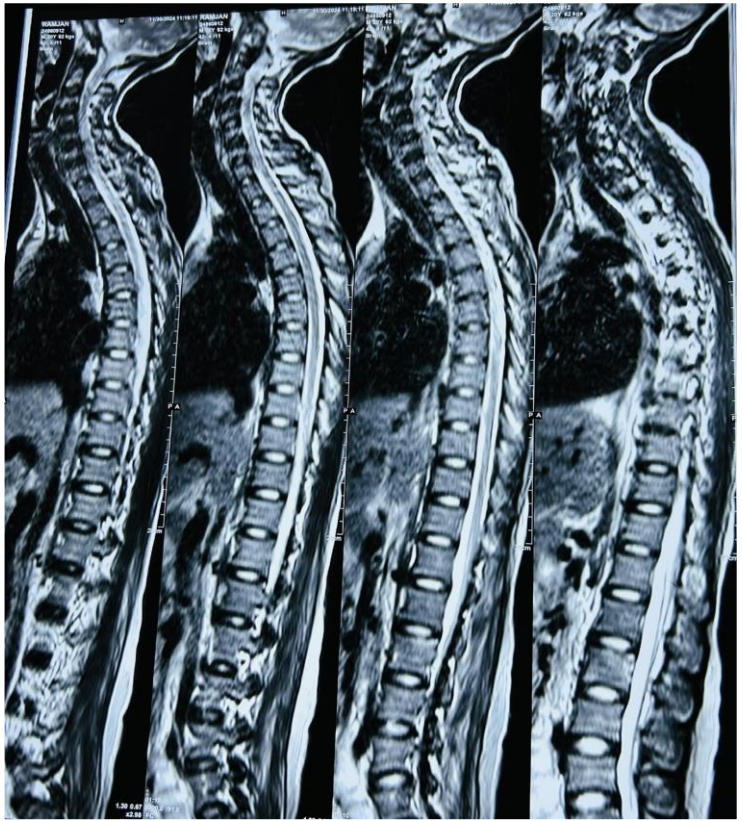
COMMENT: Suggestive of low-grade solid glioma.



MRI brain Sagittal & coronal plane



MRI whole spine (sagittal plane)



Final diagnosis is

Pulmonary tuberculosis with corpus callosum glioma.

ACKNOWLEDGEMENTS

- Department of Radiology & Imaging, DMCH
- Department of Laboratory Medicine, DMCH
- Department of Microbiology, DMC

THANK YOU ALL