A 50 Years Old Lady with Prolong Fever & Low Back Pain

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Medical officer
Dept. of Medicine

Particulars of the patient

- Name : Shamima Begum
- Age : 50 years
- Gender : female
- Religious : Islam
- Address : Mohakhali,Dhaka

Chief Complaints

1. Fever for 2 months
2. Low back pain for 1 month

History Of Present Illness

- According to the statement of the patient ,she was reasonably well 2 months back. Then she gradually developed low grade, irregular, intermittent fever & highest recorded temperature was 101°F.

- Fever was not associated with headache, vomiting, abdominal pain, chest pain, cough or hemoptysis, altered level of consciousness or any urinary complaints.

Cont..

- For last 1month she developed non radiating low back pain. Which was initially mild but worsen over time, and now unable to do her daily physical activities.
- There was no definite inactivity or morning stiffness
- There was no preceding diarrhoeal illness or urethral discharge

Cont..

- She denied any other joint pain, red eye, skin rash or patch, mouth ulcer or any features suggestive of enthesitis .

Family history

- There was no history of such type of illness in her family.

Cont..

- There was no significant personal history, past history or recent significant travel history.
- No contact history with any active TB patient
- On query, she had anorexia & unintentional weight loss about 5kg in last 2 months

General Examination

- Appearance : ill looking
- Body built : Average
- Co-operation : Co operative
- Decubitus : On choice
- Pulse : 94 beats/min
- Blood Pressure : 110/80 mmhg

Cont..

- Temperature : 100°F
- R/R : 18 breaths/min
- Anaemia, Jaundice, Koilonychia, Leukonychia, Clubbing, Cyanosis, Edema, Dehydration, Bony tenderness, Skin pigmentation – All are absent

Systemic Examination

- Respiratory system & Gastrointestinal system examination revealed nothing significant

Cont..

➡ **Locomotor system examination :**

- SLR test : Negative
- Sacroiliac joint compression & destruction test : **Positive**
- Local lower lumber-spinal tenderness : **Present**
- Examination of both hip joint (Patrick test) : no abnormality

Provisional Diagnosis

Sero-negative spondyloarthritis

Initial Investigations

- Complete Blood Count :

  Hb – 10.5 g/dl

  WBC – 20×10^3 ($4\text{-}11\times10^3$) ⬆

  Neutrophil – 70%

  Lymphocyte – 30%

  RBC – 4.5M/mcg

  MCV 89.1fl,

  MCH 28.8pg

  Platelet- 170×10^3 /uL

  ESR- 95 mm in 1st hr ⬆

Cont..

- C reactive protein : **320 mg/l** (up to 5 mg/l)
- S. creatinine : 0.75 mg/dl
- ALT : 26 U/l
- S. uric acid : 3.5 mg/dl
- CXR P/A view : Normal
- X-ray Lumbosacral spine : Mild Degenerative change

Cont..

- S. electrolyte : Na- 136 mmol/l, K– 3.7mmol/l, Cl- 100 mmol/l
- S.TSH : 4.5 U/L
- Blood Culture : No growth
- Urine R/E : Normal
- Urine C/S : No growth
- **HLA-B27 : Negative**

Hospital Course

- Started treatment with systemic corticosteroid & muscle relaxant therapy

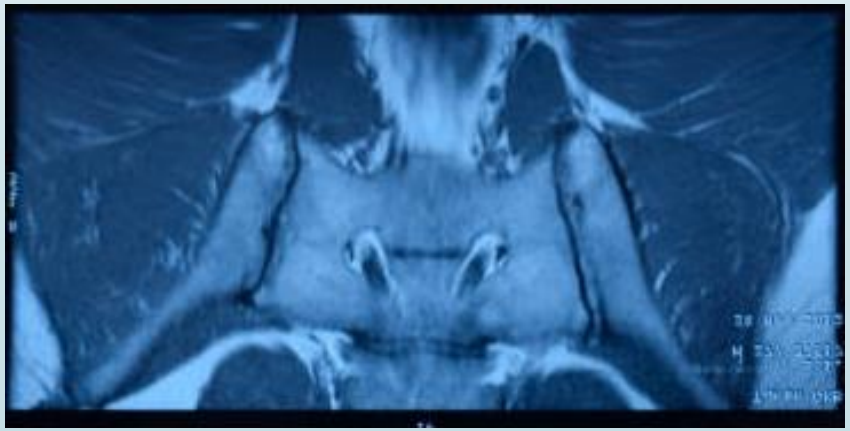
Cont..

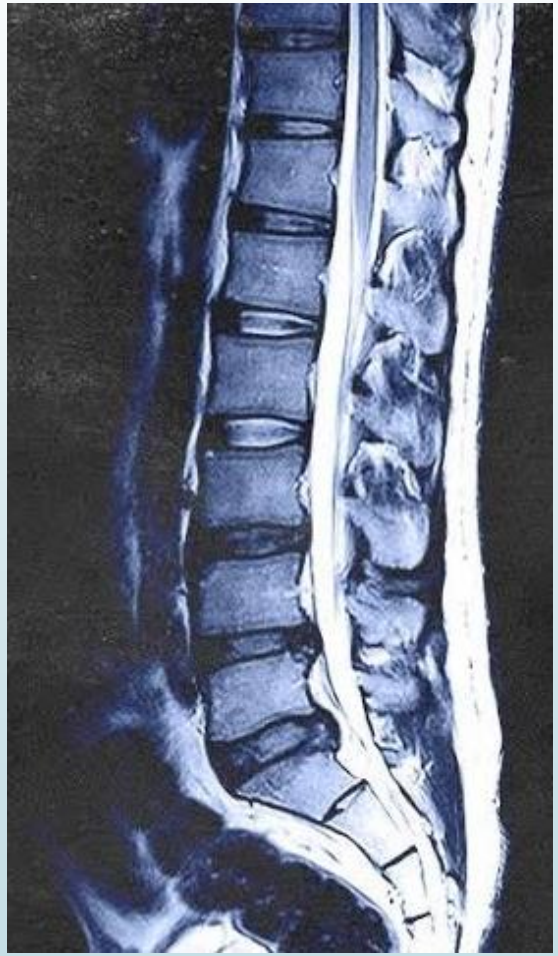
- On 4th day of starting treatment, there was no clinical improvement of the patient ,rather **low back pain worsen & patient become bed bounded**

- So, MRI of Lumbo-sacral spine with both SI joint including both hip joint was advised.

MRI of Lumbo-sacral spine & both SI joint including both hip joint

- Mild thecal sac indentation at L4/5 & L5/S1
- SI joint revealed no features of sacroilitis





Cont..

- As the patient remain febrile & there was no evidence of spondylo arthritis, corticosteroid therapy was stopped.

- She was empirically started with MEROPENEM & LINEZOLID, assuming any underlying occult infective pathology.

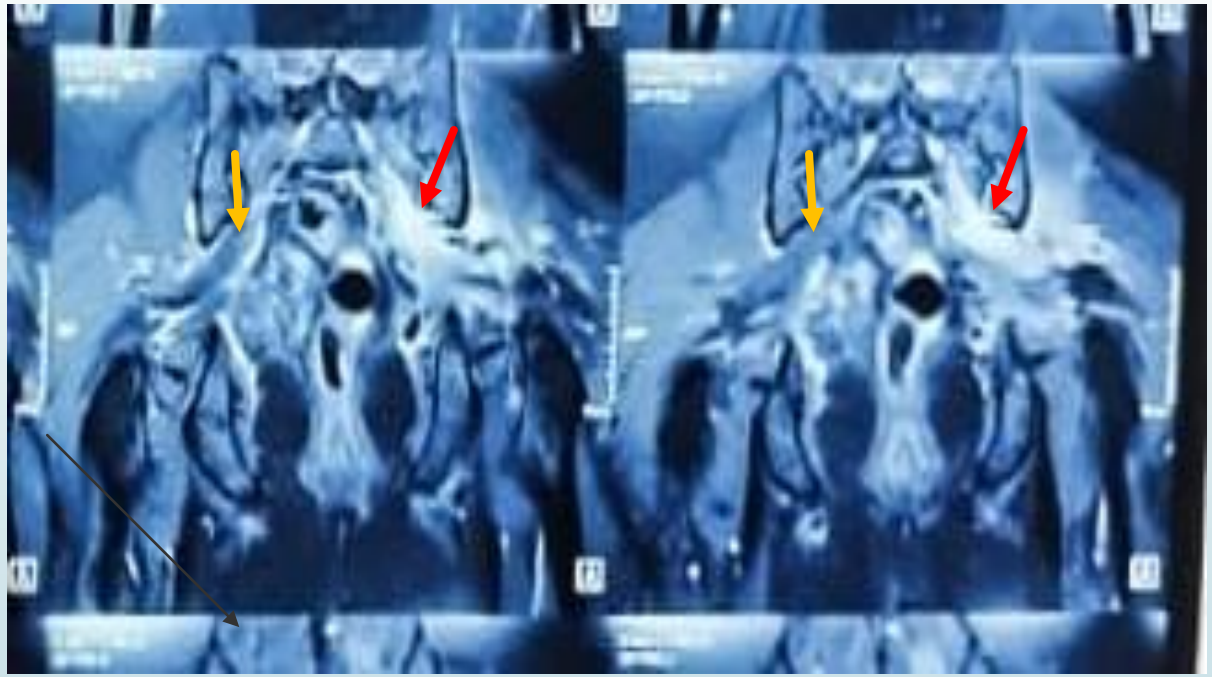
Cont..

- Despite treatment with antibiotic for 5 days, there was no significant clinical improvement as evidenced by persistent fever & no improvement of CRP (320mg/dl to 280 mg/dl).

- After proper counselling with patient's attendant**, MRI of Pelvis was planned.**

MRI of Pelvis

Diffuse T2 hyper intensity over left Ilio-coccygeus muscle. Features suggestive of **infective myositis**



Cont..

- S.CPK : 200 u/l (35 – 170)
- MT : Positive (10mm after 72 hour)

Cont..

- Both surgery & Orthopedics consultations were sought.
- There was a plan to do muscle biopsy for histopathology and Gene Xpert TB, but patient party was refused to do so.

Cont..

- Considering prolong febrile illness & non responded to broad spectum antibiotic thearapy, **empirical anti tubercular treatment was started** according to body weight with oral prednisolone (1 mg/kg/day)

Cont..

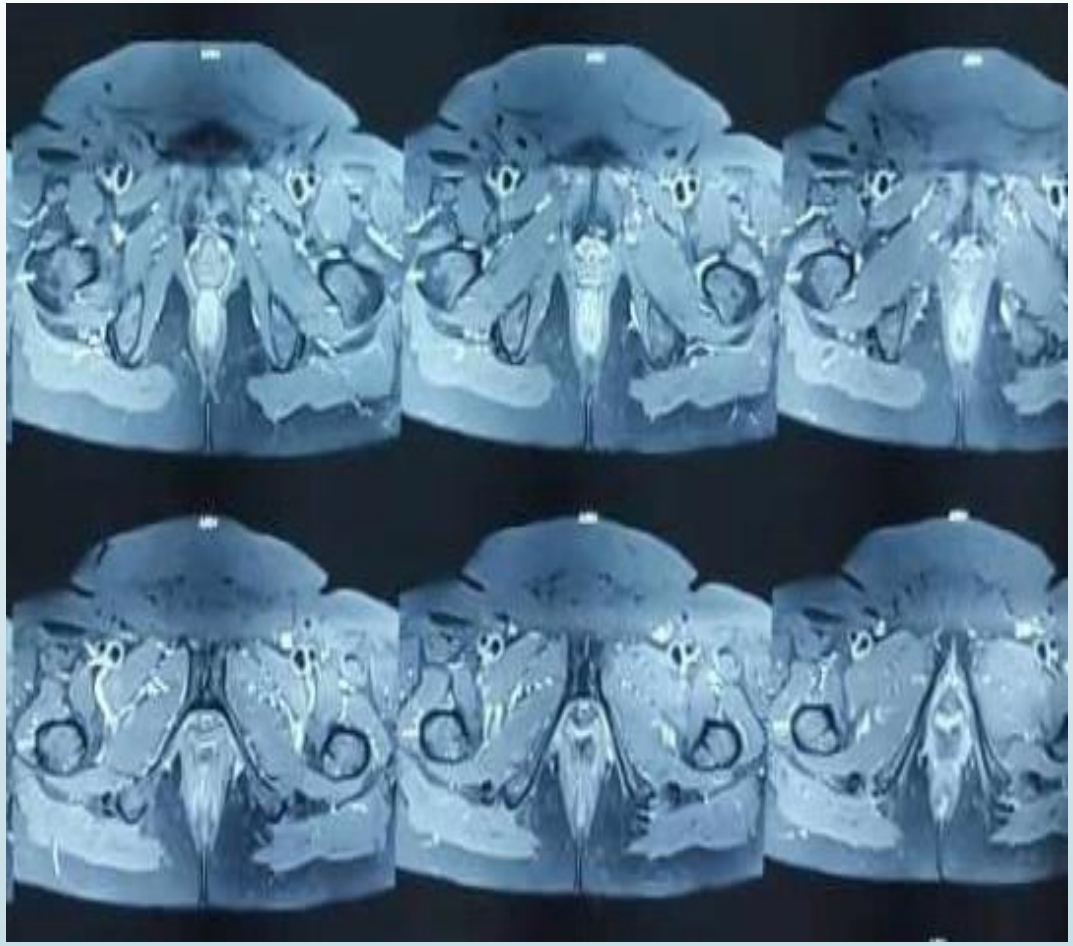
- After 10 days of starting anti tubercular treatment, Fever was subsided & mild improvement of low back pain.
- So, we planned to discharge her with anti tubercular medications & oral prednisolone.
- Advised her for OPD follow-up after 1month.

OPD Follow-up

- During her follow up visit after 1month , **there was no fever & significant improvement of low back pain .**
- So ,we planed to continue anti tubercular drug for 9 months & oral steroid for 8 weeks.
- Advised her for second follow up after 6month with repeat MRI of Pelvis.

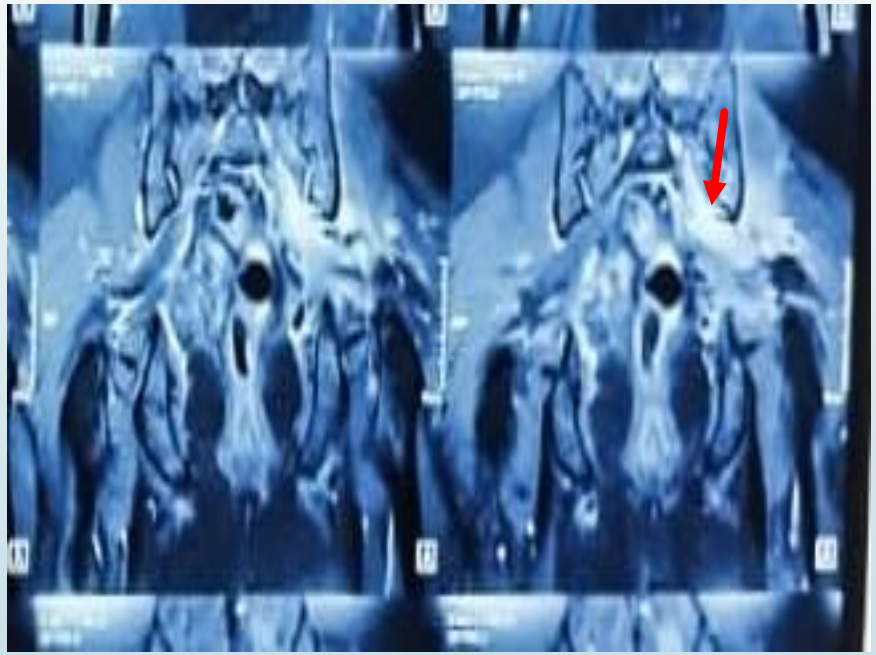
Follow-up MRI of Pelvis

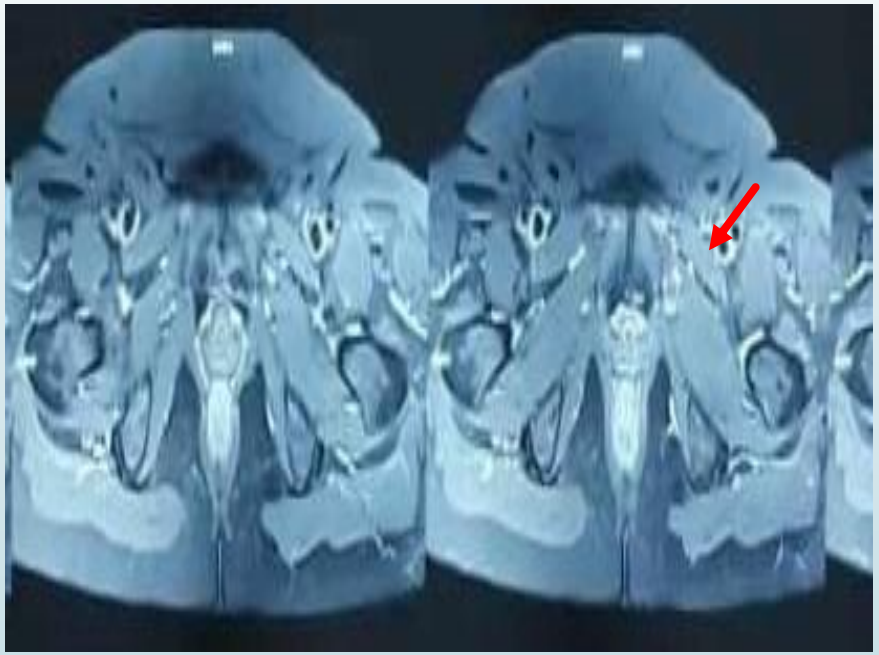
- Normal findings



Before treatment

After treatment





Final diagnosis

Iliococcygeal Tubercular Myositis

THANK YOU

A Young Man With Acute Bilateral Lower Limb Weakness

Dr. Sobnom Jarin Mim
HMO
Department of Medicine

Particulars of the patient:

- Name : Ashiquor Rahman
- Age:27
- Occupation:Student
- Address:Demra
- Date of admission:15 November 2023

Chief Complaints:

1. Fever for 3 days.
2. Generalized body ache, runny nose for 3 days.
3. Loose motion for several times for 2 days.

H/O Present Illness:

- My patient Ashiquor rahman, age 27 years,hailing from Demra admitted to our hospital with the complaints of fever for 3 days. It was high grade and intermittent in nature, highest recorded temp. was 104°F.

- Fever was associated with runny nose,dry cough, headache and generalized body ache and not associated with chills & rigor and subsided temporarily after taking anti pyretics.

- He also complained of loose motion for 2 days'.it was watery, not mixed with blood and about 3-4 times in a day.

•He had no H/O vomiting, abdominal pain, cough, chest pain or headache.

•There was no H/O altered level of consciousness, convulsion or hemoptysis.

•His urine output was normal .

•He had no significant travel history.

•He is not a known case of DM, HTN, Bronchial Asthma.

General Examination:

- Appearance: Ill looking
- Body built: Average
- Co-Operation: Co operative
- Decubitus : On choice
- Nutritional status: Average
- Anemia: absent

- Jaundice: Not found
- Cyanosis: Not found
- Clubbing: Not found
- Koilonychia: Not found
- Leukonychia: Not found
- Pulse : 90 b/m
- BP: 120/70 mm Hg

- Temp: 99°F
- RR: 18 breath / mins
- Edema :Absent
- Dehaydration:Not found
- Skin pigmentation: Not found
- Bony Tenderness: Not found

- JVP: Not raised
- Thyroid gland : Not enlarged
- Lymph Node : Not Palpable

- Other systemic examination revealed no abnormalities.

Investigation:

1. CBC:

- Hb - 11.7 g/ml (MCV 80 fl, MCH 28 pg)
- WBC - 9×10^3/uL(Neutrophil-70% ,Lymphocyte-21%)
- RBC - 4.5 M/uL
- Platelet - 160×10^3/uL

➨2. CRP: 40 mg/l

- 3. S. Electrolyte:
- Na-139 mmol/l,
- K-4.5 mmol/l,
- Cl- 100 mmol/l,
- HCO3-25 mmol/L

- 4. SGPT: 15 U/L
- 5. Dengue NS1: Negative
- 6. S. Creatinine: 0.92 mg/dl
- 7. Blood C/S: no growth
- 8.Chest X-Ray:Normal

Hospital Course:

- We treated the patient symptomatically.
- Planned to discharge him as a case of viral Fever.

- The night before discharge he developed severe symmetrical bilateral thigh and calf muscle pain without any weakness.

- Repeated clinical examination revealed no definite muscle or joint tenderness.

- Thinking of viral myositis serum CPK was sent and CPK report came normal.
- On the very next day he developd weakness of both lower limb along with pain without any focal neurological defecit.
- He also develops nocturnal urinary incontinence.

- Clinical examination revealed muscle power 3/5 with normal deep tendon reflex with equivocal bilateral planter response.

- Upper limb and cranial nerve examination revealed no abnormalities.

- On the very next day weakness progressed to such level that the patient became bed bound. The muscle power was 0/5 with bilaterally brisk knee and ankle jerk with sustained ankle clonus.Planter response were bilaterally extensor.

- Sensory examination revealed no definite sensory level.

- There was no history of visual impairment, speech difficulty, swallowing difficulty, no history of nasal regurgitation and breathing difficulty.
- Fundoscopy revealed no feature suggestive of optic neuritis.
- Repeat upper limb and cranial nerve examination revealed no abnormalities.

- *Provisional Diagnosis:*
-
-

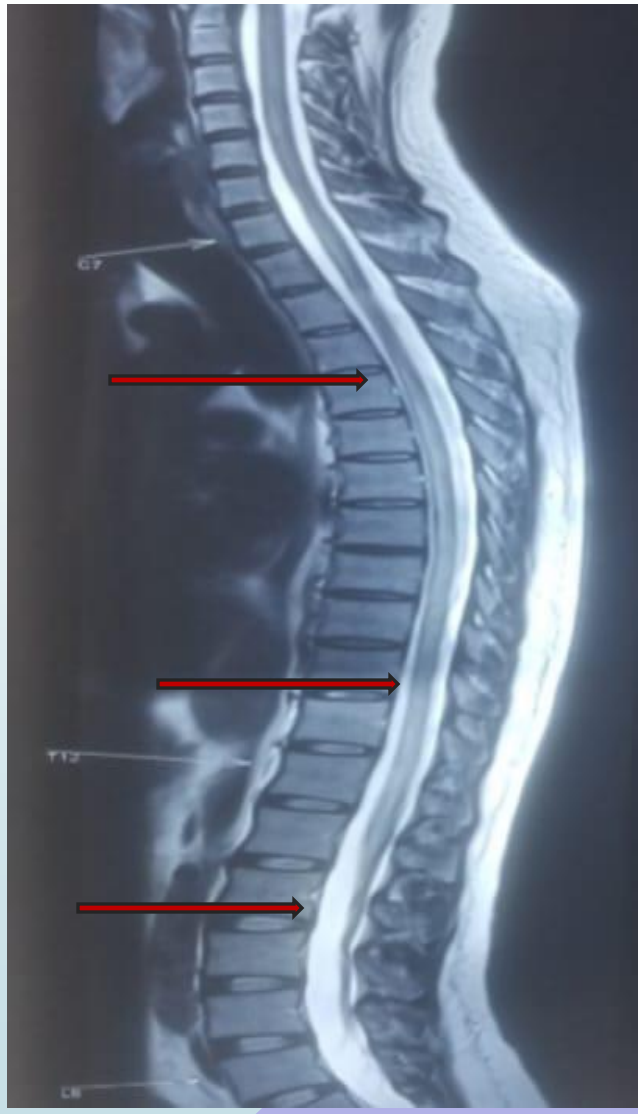
Acute Transverse Myelitis

Differential Diagnosis:

- 1.Multiple Sclerosis.
- 2.Acute Disseminated Encephalomyelitis

- *MRI of dorsal spine*
- *With screening of whole spine:*

T2 W sagittal image showing ***a long-segment T2 hyperintense signal extending from T4 upto conus medullaris***



- For supportive investigation CSF study was done.which revealed
- Protein: 77 mg/dl ⬆
- Glucose: 71 mg/dl
- WBC: 80/cmm with
- (Lymphocyte:98%, Neutrophil:2%)
- ADA: 2.8 U/L (Ref. Range: <10 U/L)

Final Diagnosis:

- **Acute Longitudinal ExtensiveTransverse myelitis (LETM)**

Treatment:

- Inj. Methyl prednisolone(1gm/day) for 5days

- After giving injectable methyl prednisolone for 5 days He showed significant improvement with muscle power MRC grade from 0/5 to 3/5 in both lower limbs.

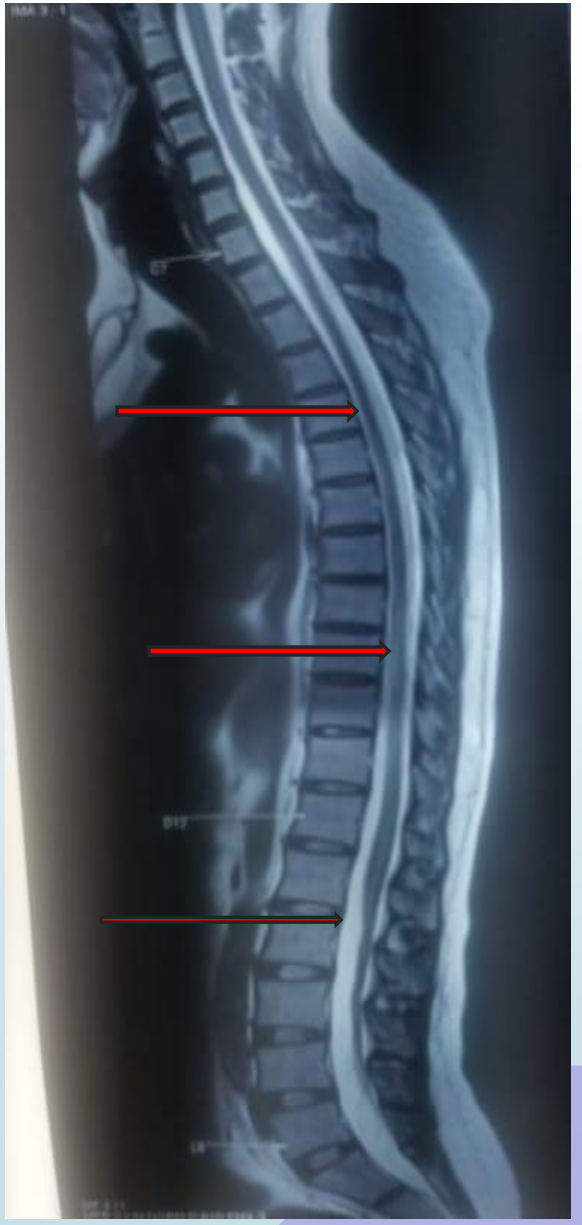
- As there is long segment Transverse Myelitis with involvement of conus, so, **MOGAD (Myelin oligodendrocyte glycoprotein antibody disease)** was suspected and **anti-MOG antibody** was sent.

We discharged the patient with tab. Prednisolone 1 mg/kg/day for next 10 days. He was adviced to follow up after 10 days with report of anti MOG antibody and repeat MRI of dorsal spine.

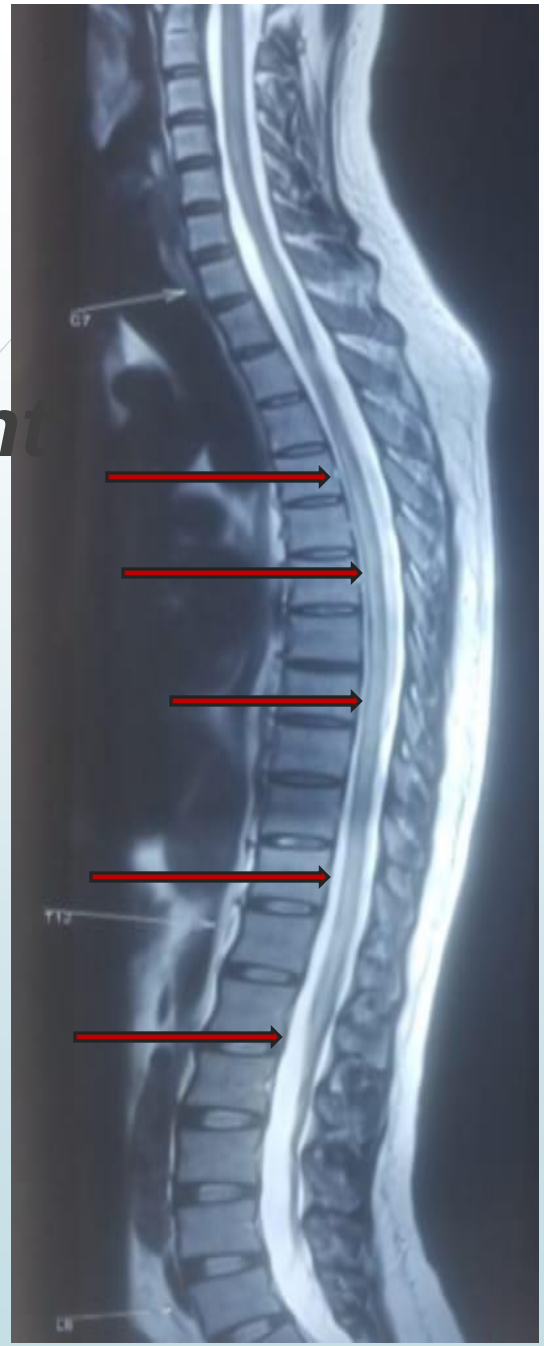
- On OPD follow up there was no urinary incontinence, Muscle power was MRC garde 5/5 in both lower limb, and patient can walk well without any support.
- **Anti MOG antibody was positive in high titre [1:100]**
- Repeat MRI of dorsal spine revealed normal cord Intensity.

Follow up MRI of Dorsal spine with Screening of whole spine: (After 10 days):

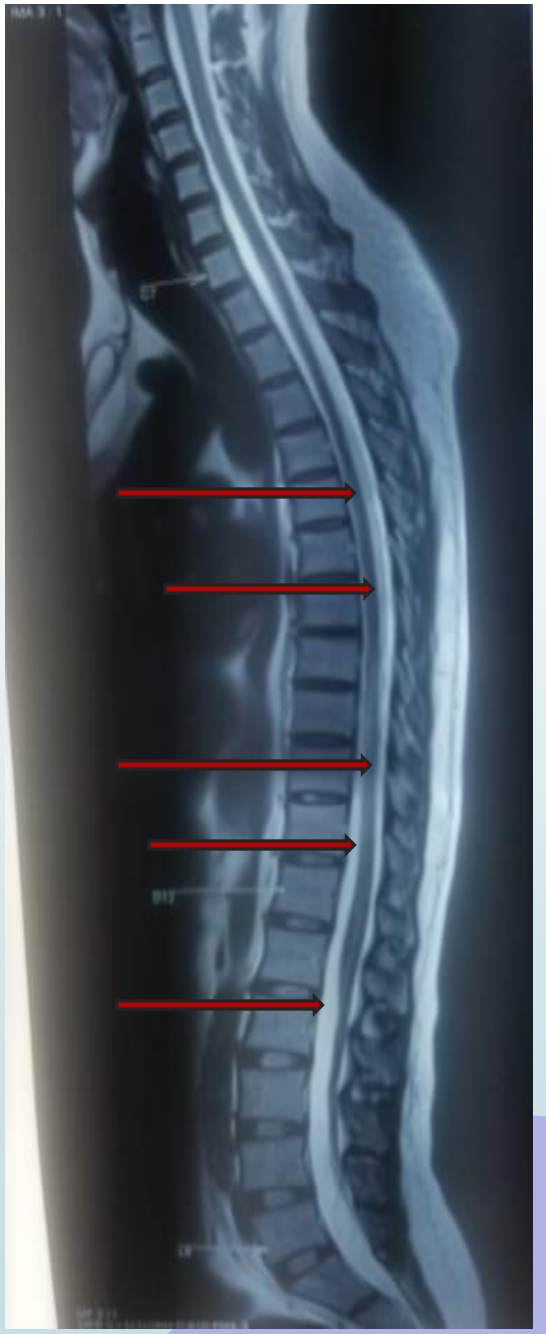
T2 W sagittal Image showing **significant reduction in the T2 hyperintensities Within the spinal cord**.



- ***Before Treatment:***



After Treatment:



- ***FINAL DIAGNOSIS:***

- **Post viral acute longitudinal extensive transverse myelitis (LETM): MOGAD**

Thank You