A 10-year-old boy with progressive weakness of lower limbs

Organized by: Department of Pediatrics
Addin Women's Medical College

Presented by

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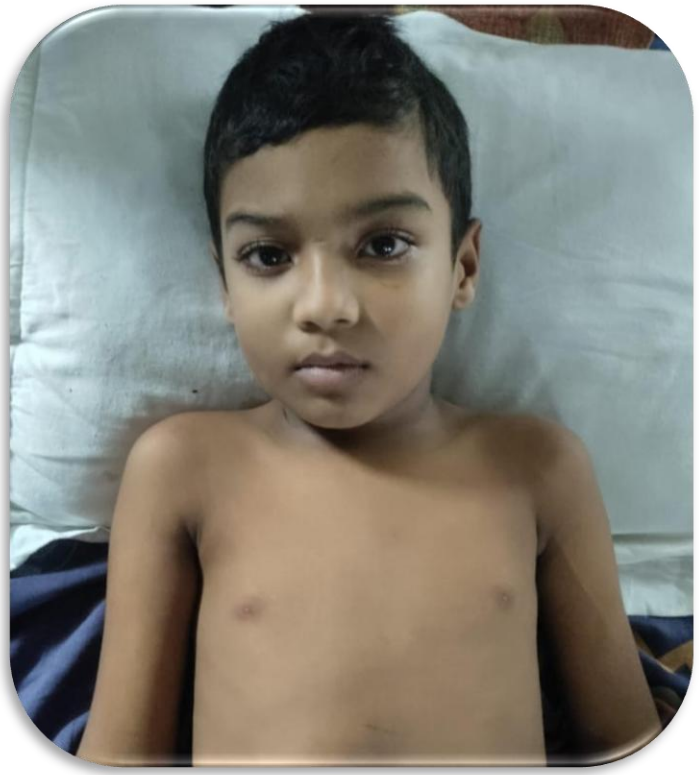
Particulars of the patient

Name	**: Jubayer**
Age	: 10 Years
Sex	: Male
Date of admission	: 22.7.2025
Date of examination	: 22.7.2025
Address	: Jashore
Informant	: Mother



Presenting complaints

1. Progressive weakness of both lower limbs - 10 days
2. Pain in back & lower limbs – 8 days

History of present illness

According to the informant mother, Jubayer was quiet well 10 days back then he developed weakness in both lower limbs which was ascending in nature & progressively involved the upper limbs. Initially, he used to fall frequently & for the last 2 days he became unable to stand completely.

He also had complaints of low back pain which used to radiate to lower limbs.

History of present illness Cont'd

Mother also told that he had history of low-grade fever for 2 days 2 weeks back. He had no history of cough, diarrhea, trauma to spine, exposure to toxins or taking any drugs.

His sensation and bowel-bladder were normal and had no respiratory distress, swallowing or feeding difficulties, convulsions, altered level of consciousness & visual impairment.

History of present illness Cont'd

With these complaints they consulted an orthopedic surgeon who referred him to a pediatric neurologist of this hospital for further evaluation and management.

History of past illness

Nothing significant.

Birth history

- Antenatal : Uneventful
- Natal : Delivered at term by LUCS
  Birth weight – 3.5 kg
- Post Natal : Uneventful

Feeding history

- ❑ Exclusively breastfed up to 6 months
- ❑ After 6 month: Complementary feeding was added along with breast feed.
- ❑ Now on family diet.

Immunization history

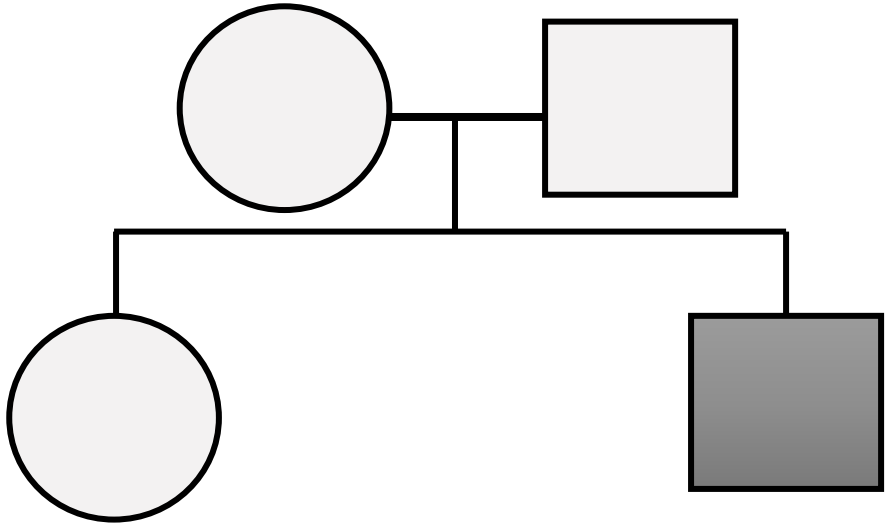
- ❑ Immunization completed as per EPI schedule

Developmental history

- ❑ Age appropriate

Family history

He is the 2nd issue of non-consanguineous parents. All the members of his family are in good health.



Socio-economic history

- ❑ He belongs to a middle-class family
- ❑ They live in building
- ❑ Use sanitary latrine and drink tube well water.

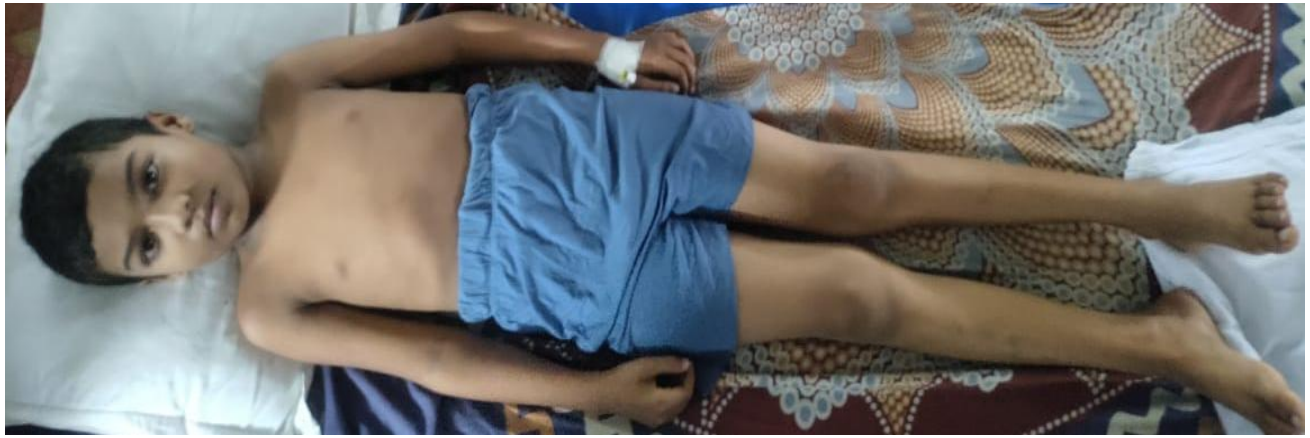
	Age	Education	Occupation
Father	28 years	Class 7 passed	Farmer
Mother	25 years	Class 5 passed	Home Maker

Personal history

- **HEEDSSS**: assessment not significant

Home	**:**	**Normal**
Education & employment	:	Class 3
Eating	:	Normal
Activities	:	Normal
Drugs	:	No
Sexuality	:	NAD
Suicide	:	No
Safety & social media	:	Normal

General inspection



- An anxious boy with apprehensive look lying flat with immovable lower limbs
- Having good nutritional status

- Vitals

Pulse	: 92 bpm
BP	: 90/60 mmHg
Temp	: 98° F
R/R	: 26 /min
SpO2	: 97%
CRT	: <2 Sec

General examination head to toe (which relevant to NS)

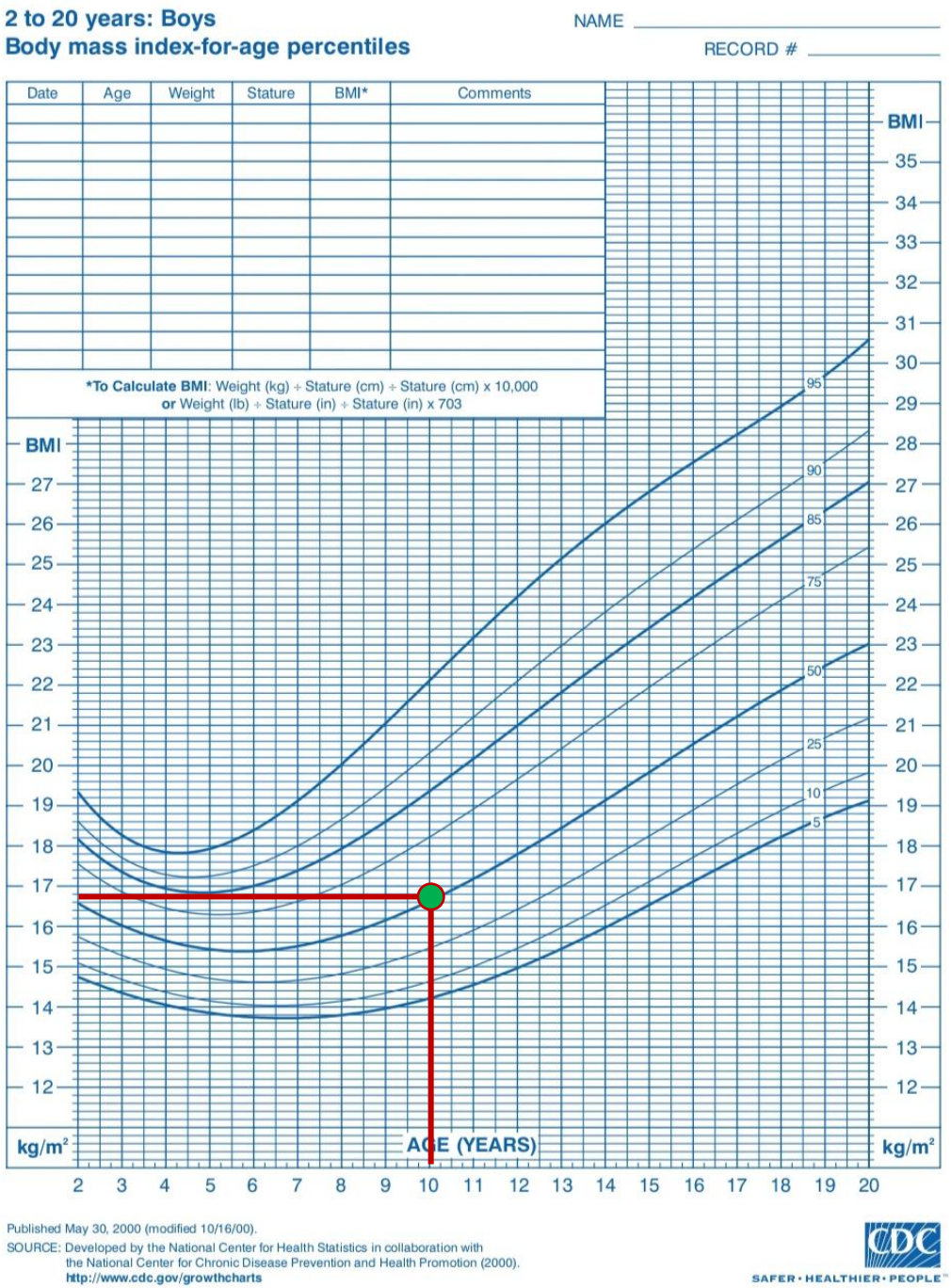
Anemia	:	Mildly pale
Jaundice	:	Not found
Cyanosis	:	Not found
Clubling	:	Not found
Koilonychia	:	Not found
Leukonychia	:	Not found
Lymph node	:	Not enlarged
Oedema	:	Not found

General examination head to toe (which relevant to NS) Cont'd

BCG mark	:	Present in left upper arm
Dehydration	:	Not found
Bony tenderness	:	Not found
Ear, Nose, Throat	:	Normal
Skin survey	:	Normal
Spine	:	Normal

Anthropometry

Parameters	Observed value	Z-Score
Weight	30 kg	
Height	133 cm	
BMI	16.95 kg/m2	+0.12



Systemic examination

Nervous system examination

- ❑ Higher Psychic function : The child was awake, aware & oriented to time, place & person.

- ❑ Cranial Nerve examination : Normal as I could examined

Nervous system examination Cont'd

- Motor examination

Inspection	:	No atrophy, hypertrophy, contracture, deformity, Both upper & lower limbs were bilaterally symmetrical

Nervous system examination Cont'd

- Motor examination

Palpation :

	Right LL	Left LL
Bulk	Normal	Normal
Tone	**Diminished**	**Diminished**
Power	**2/5**	**2/5**
Reflex		
Knee jerk	**Absent**	**Absent**
Ankle Jerk	**Absent**	**Absent**
Planter	**Non responsive**	**Non responsive**
Clonus	**Not found**	**Not found**

Nervous system examination Cont'd

- Motor examination

Palpation :

	Right UL	Left UL
Bulk	Normal	Normal
Tone	**Diminished**	**Diminished**
Power	**4/5**	**4/5**
Reflex		
Biceps jerk	**Absent**	**Absent**
Triceps jerk	**Absent**	**Absent**

Nervous system examination Cont'd

- Motor examination :

Coordination	
Heel to shin test	Couldn't performed
Finger to nose test	Normal
Gait	Couldn't performed

Nervous system examination Cont'd

- Sensory examination :

	Upper limb	Lower limb
Pain	Normal	Normal
Touch	Normal	Normal
Temperature	Normal	Normal
Position of joint	Normal	Normal
Vibration sense	Normal	Normal

Systemic examination Cont'd

- Other systems examination (Loco motor, Respiratory system, CVS, GIT) : Revealed Normal

Salient features

Jubayer 10 years old boy, 2nd issue of non- consanguineous parents hailing from Jashore, presented with 10 days progressive weakness of lower limbs, which was ascending in nature & involves the upper limbs. He also had complaints of low back pain which used to radiate to lower limbs. He had no sensory impairment & bowel-bladder were normal.

Salient features Cont'd

Jubayer had history of low-grade fever for 2 days 2 weeks back. He had no history of respiratory distress, swallowing difficulty, convulsion or unconsciousness. He looked ill, mildly anemic, vitals and anthropometry were normal. He had **flaccid type of quadriparesis**, all deep reflexes were absent & planter was non responsive. Other systems were normal.

Provisional diagnosis

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Guillain-Barre Syndrome

Differential diagnoses

- ❑ Transverse myelitis with spinal shock
- ❑ Compressive myelopathy (Tumor, Trauma)

	Points in favor
GBS	▪ Acute weakness of lower limbs ▪ Ascending in nature ▪ Progressive ▪ All reflexes were absent ▪ Sensory intact ▪ Bowel bladder normal

	Points in favor	Points against
Transverse myelitis with spinal shock	▪ Acute weakness of lower limbs ▪ All reflexes were absent	▪ Progressive weakness ▪ Ascending weakness ▪ Sensory intact ▪ Bowel bladder normal
Compressive myelopathy	▪ Acute progressive weakness of lower limbs (Quadriparesis) ▪ Areflexia ▪ Pain	▪ Sensory intact ▪ Bowel bladder normal

Investigations

❑ CBC

Hemoglobin	:	12.1 g/dL
Total count of WBC	:	19.18 K
Neutrophil	:	43.1%
Lymphocyte	:	50.6%
Platelets	:	429K
ESR	:	30 mm

Investigations Cont'd

❑ NCS of cross-limbs

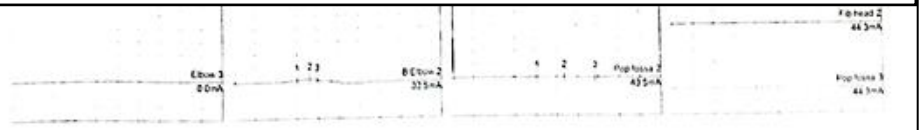
Impression: These electrophysiological findings are consistent with Demyelinating Polyneuroradiculopathy
(**GBS – variant AIDP with secondary Axonal involvement)**

National Institute Of Neurosciences & Hospital
Sher-E-Bangla Nagar, Dhaka, Bangladesh.
Department of Neurophysiology
NCS & Electromyography Report

Full Name:	Jubayer	**Gender:**	Male
Patient ID:	NINS 1430181	**Date of Birth:**	10/10/2015
Visit Date:	7/28/2025 09:00		
Age:	9 Years 9 Months Old		

Findings:

- Motor distal latency is prolonged
- CV is reduced in right Ulnar and left Tibial nerves
- F- Latency is absent
- CMAP is reduced to absent SNAP is absent



Investigations Cont'd

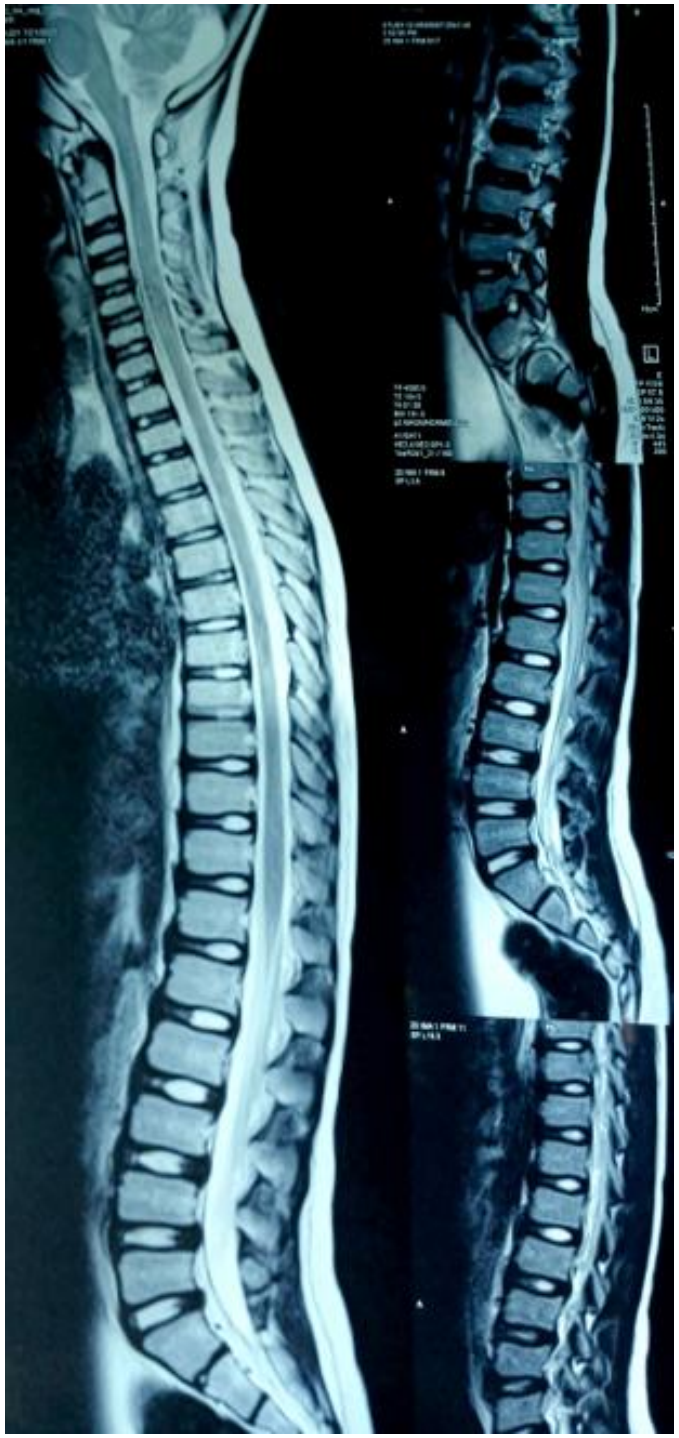
❑ CSF study

Physical examination		
Color	:	Color less
Appearance	:	Clear
Reaction	:	Alkaline
Microscopic examination		
Total WBC count	:	**10 cells/cmm**
Differential count	:	Lymphocyte: 100%
CSF Glucose	:	4.12 mmol/L (2/3 of blood glucose)
CSF Protein	:	**230.70mg/dl** (15-45mg/dl)

Albumino-cytological dissociation

Investigations Cont'd

- **MRI of spine** : Normal (There is no features of spinal cord compression, Contrast enhancement/any signal changes in the spinal cord)



Final diagnosis

Guillain-Barre Syndrome
subtype
Acute inflammatory demyelinating polyneuropathy (AIDP)

Management

- **Counselling**: About the disease, its complications, treatment options & prognosis.
- **Supportive Management**
  - Maintenance of proper nutrition
  - Tab. Pregabalin
  - Tab. Vit- B1+B6+B12

Management

- **Specific treatment:** IVIG (2.5gm/50r
  Total dose 2gm/kg for 3days
  = (2×30)gm =60gm (24 vial)

At the rate/ Vial= 14,700taka

- **Physiotherapy**


Normoglobin

Follow up

Day 1

- Weakness, Pain
- Hemodynamically stable
- Flaccid Quadriparesis (power 2/5)
- No bulbar involvement

During discharge

- Weakness improved
- Pain subsided
- Hemodynamically stable
- Flaccid Quadriparesis (power 4/5)
- No bulbar involvement

Thank you…..

ANY Questions?