

## INTRODUCTION

- Coronavirus-19, COVID-19 virus is known to cause a wide variety of neurological disorders including Guillian Barre Syndrome (GBS).
- Studies have shown that GBS is less common and milder in children as compared to adults.
- The COVID pandemic ended on May 11, 2023, but the effects on children are still persisting.

## CASE PRESENTATION

14-year old female came with:

- Progressive weakness of lower limbs followed by weakness of arms.
- By Day 10, she was non ambulatory.
- Examination- Power 2/5 in all muscle groups of lower limbs, areflexia in bilateral ankles and knees.

## INVESTIGATIONS

Nerve Conduction Study(NCS) on Day 2 and 10, CSF examination - normal. MRI showed post contrast enhancement in the distal dorsal cord, conus medullaris and cauda equina nerve roots bilaterally. COVID serology positive (10,841 IU/mL).

She was treated with IVIG (2gms/kg) over 5 days. She had complete recovery after 3 months on follow up.

## DISCUSSION

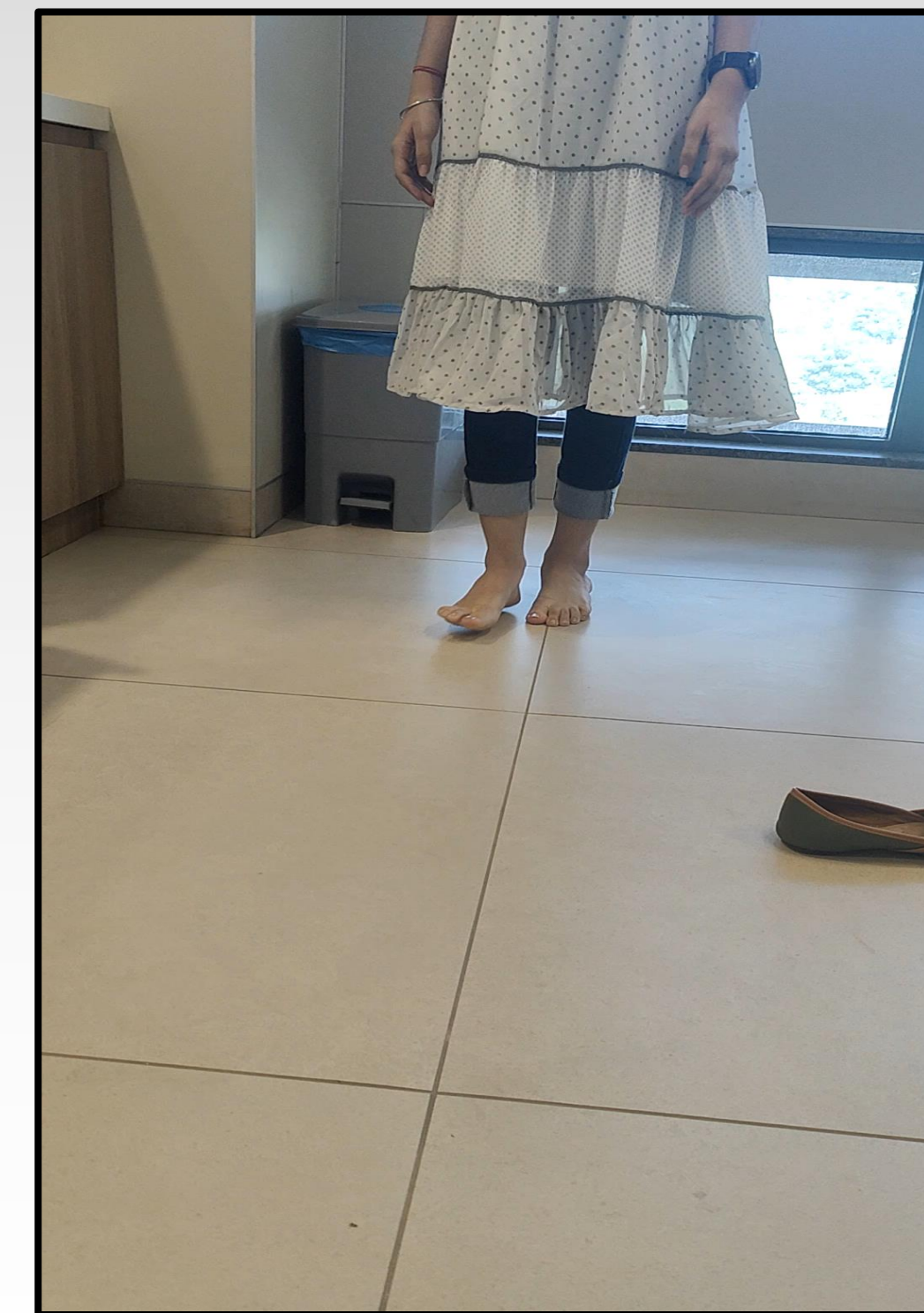
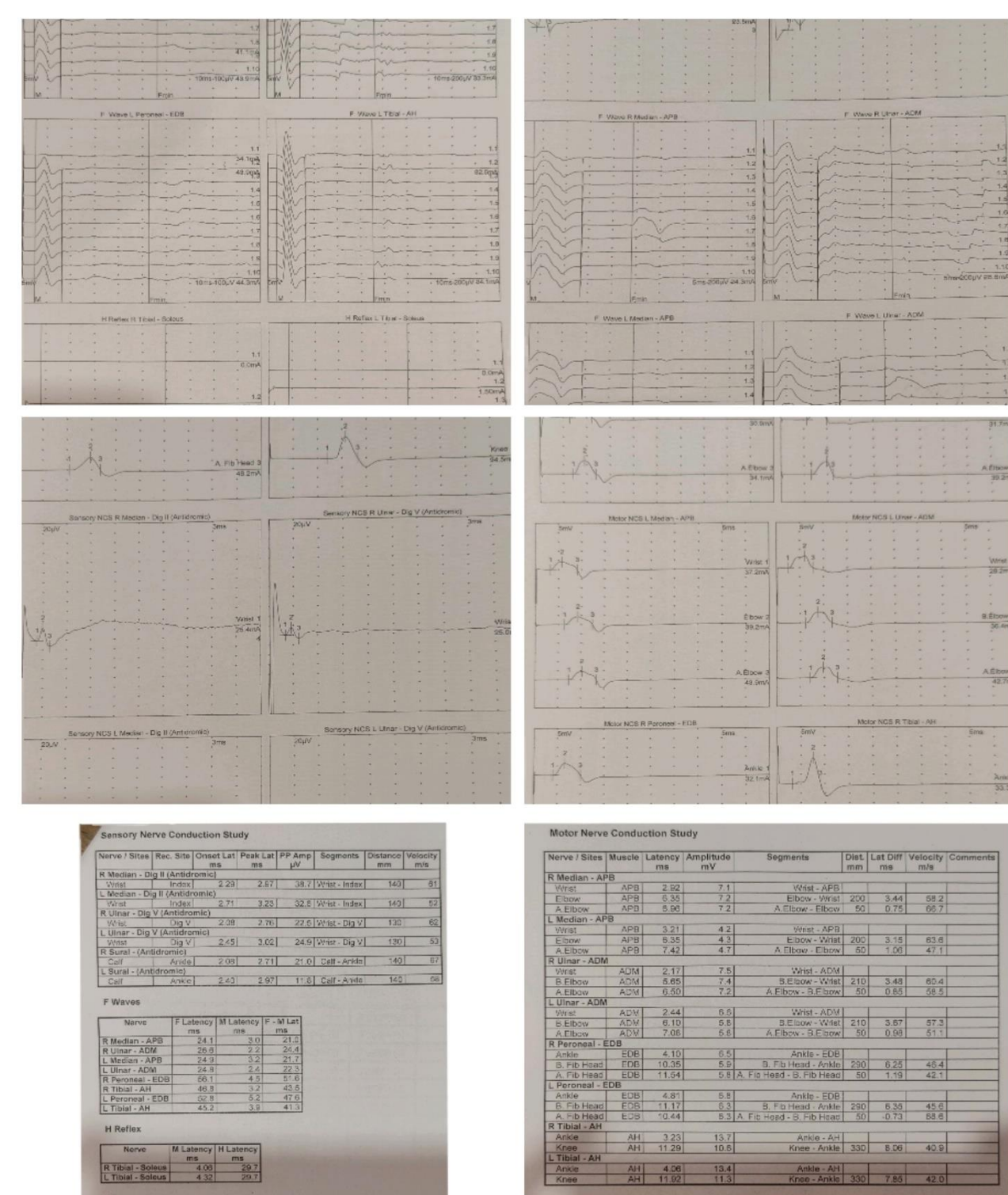
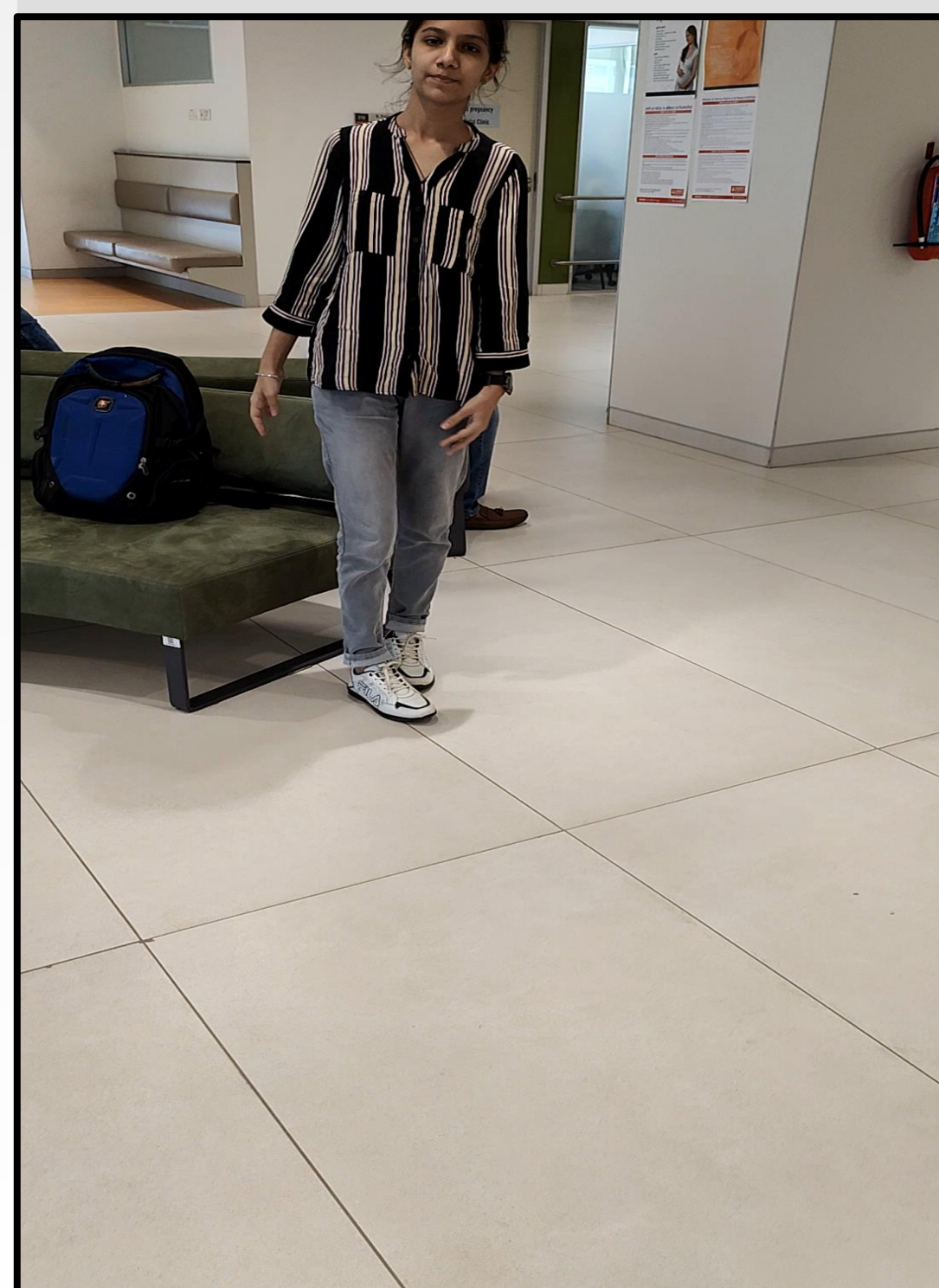
- NCS assists in diagnosis but can be completely normal in acute phase; normal study does not rule out GBS.<sup>1</sup>
- A false negative is a common problem if investigation is performed earlier than 3 weeks after the onset of clinical symptoms.<sup>2</sup>
- There have been 35 children reported with post COVID GBS and all reported abnormal NCS, except one where NCS was not done.<sup>3</sup>
- To improve sensitivity for early diagnosis, addition of late responses to NCV (F waves, H reflex or T reflex), and special techniques like triple stimulation technique or lumbar root stimulation, when available. Imaging techniques either MRI spine may depict early lesions in proximal nerve trunks.<sup>4</sup>

## CONCLUSION

- Acute flaccid paralysis with areflexia should raise clinical suspicion of GBS.
- NCS, CSF and MRI can help support the diagnosis but may not always be abnormal.

## REFERENCES

- Muscle Nerve. 1989;12:435–51.
- <https://www.ncbi.nlm.nih.gov/books/NBK562217>.
- Al Jaber M, Shihadat R, Masri A. Post- SARS COV-2 Guillian Barre Syndrome in a child: a case report and review of the literature. Childs Nerv Syst. 2022 Oct;38 (10) 2011-16.
- Berciano J. Guillian Barre Syndrome with a normal nerve conduction study associated with COVID-19 infection in children: Correspondence. Indian J Pediatr. 2023 Jan;90(1):105.



On admission

Day 4

After 3 months