

To study the impact of the COVID-19 pandemic on the clinical profile and treatment outcomes of pediatric Guillain Barre syndrome

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INTRODUCTION

- Landry -Guillain-Barré syndrome (LGBS) is the most common cause of acute flaccid paralysis in children ¹
- This study was aimed at evaluating the clinical characteristics of children with GBS during the COVID-19 pandemic at a tertiary health care centre located in Northern India.

OBJECTIVES

Aim : To study the impact of COVID-19 pandemic on clinical profile and treatment outcomes in pediatric Guillain-Barré syndrome (GBS).

Objectives

- Primary:** Comparison with MRC sum score at 12 weeks post discharge .
- Secondary:** Comparison with Hughes disability score at 12 & 24 weeks post discharge and to study about the presence of atypical features in the COVID positive group.

METHODOLOGY

- Inclusion criteria:** Children below 12 years of age, within 16 weeks of diagnosis, fulfilling the diagnostic criteria for GBS (Asbury and Cornblath 1990) and parents willing for follow up were included in the study.
- Exclusion criteria :** Parents who denied consent or were not willing to follow up.
- Prospective observational study conducted between April 2021 till December 2022.
- All patients who were admitted were screened for COVID 19 infection with RTPCR test.

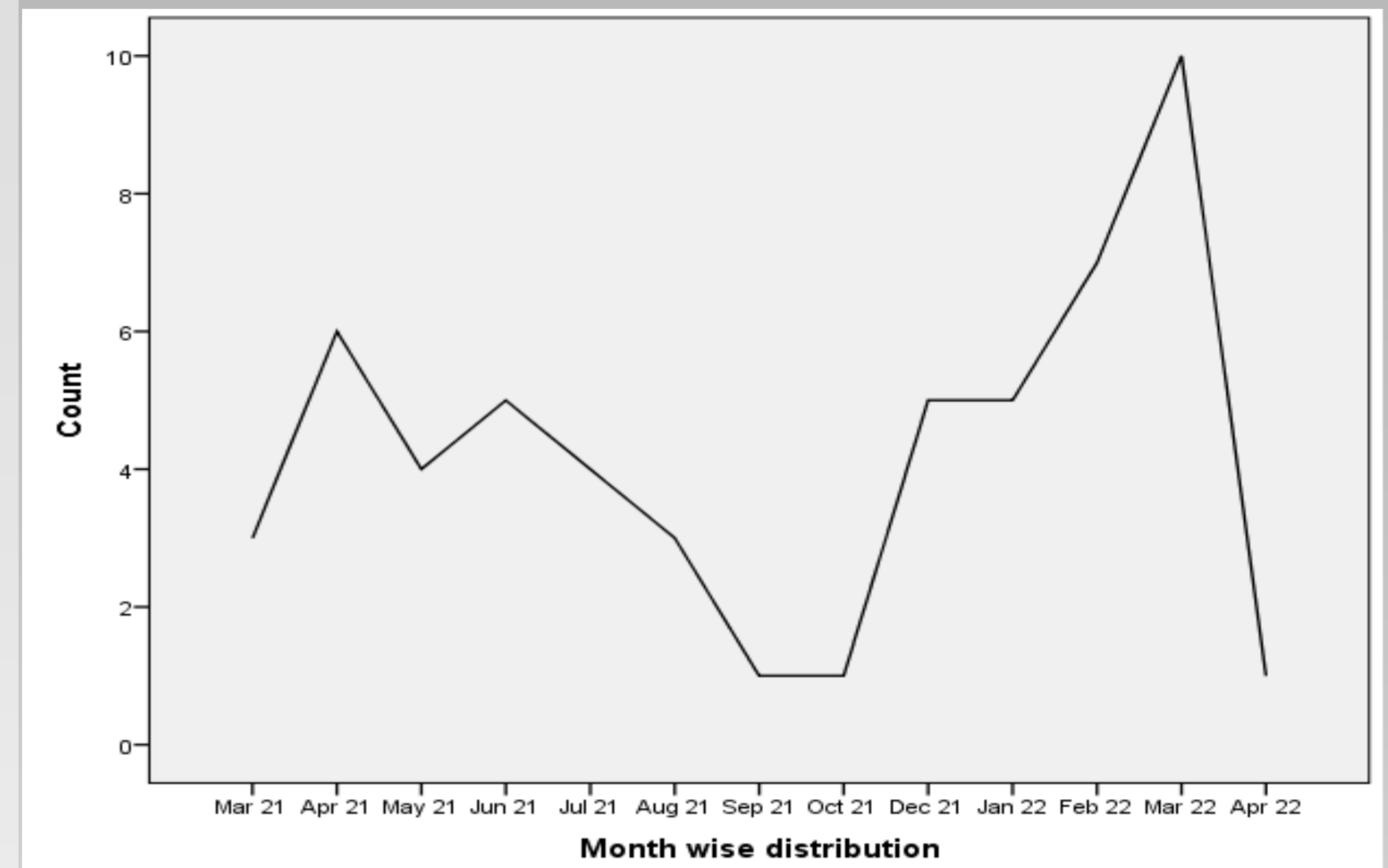
RESULTS

Hospital variables	COVID Positive group (n=6)	COVID Negative group (n=49)	p value
No. of children requiring PICU care, n(%)	6 (100%)	27 (55.6%)	0.05
No. of children requiring invasive ventilation	6 (100%)	17 (34%)	0.004
Duration of total hospital stay, mean, SD	52.17 ± 28.9	18.37 ± 19.7	0.000
Motor and functional scores	COVID Positive group (n=6)	COVID Negative group (n=49)	p value
At Maximum disability			
MRC score, median (IQR)	16 (0.00 – 23.5)	20 (10-30)	0.24
Hughes score , median (IQR)	5 (5-5)	4 (4-5)	0.003
At Discharge			
MRC score , median (IQR)	34.00 (24-45)	34.00 (25.5 – 42)	0.8
Hughes score , median (IQR)	4 (3.5-4)	4 (4-4)	0.79
Primary outcome			
MRC score at 12 weeks, median (IQR)	55 (48.5-60)	50 (44 – 56.75)	0.25
Secondary outcomes			
Hughes score (12 wks) median (IQR)	1.5 (0.25-2)	2 (1-3)	0.24
Hughes score (24 wks) median (IQR)	0.5 (0-1)	1(0-2)	0.25
No. of ambulatory kids at 24 weeks follow up, n(%)	6 (100%)	43 (87.7%)	0.12

Atypical findings in children with LGBS with COVID positivity.

Case no	Age(years)/Sex	Nerve conduction study	Atypical findings
08.	10/Male	Acute motor axonal polyneuropathy (AMAN)	1) Reflexes were present consistently. 2)Early morning weakness present hence neuroparalytic snake envenomation kept as a differential.
13.	7/Female	AMAN	Descending paralysis
14.	4/Male	Acute inflammatory demyelinating polyneuropathy (AIDP)	None
33.	7/Male	AMAN	None
35.	5/Male	AMAN	MRI – Hypoxic brain injury EEG - generalized delta and theta slowing

MONTH WISE DISTRIBUTION CASES IN THE STUDY



CONCLUSIONS

Though a higher number of children with COVID positivity had longer PICU requirements, ventilation, and hospital stay, their treatment outcomes were similar at discharge and follow-up.

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