Clinical profile and long term fine motor outcome in pediatric patients of GBS (Gullian Barre Syndrome)

Dr Ashna Kumar[1], **Dr Lokesh Saini**[1] *, Dr Sarbesh Tiwari[2], Dr Daisy Khera[1], Dr Bharat Choudhary[1], Dr Jagdish Prasad Goyal[1], Dr Kuldeep Singh[1]

1 Department of Pediatrics, All India Institute of Medical Sciences, Jodhpur 2 Department of Radiology, All India Institute of Medical Sciences, Jodhpur

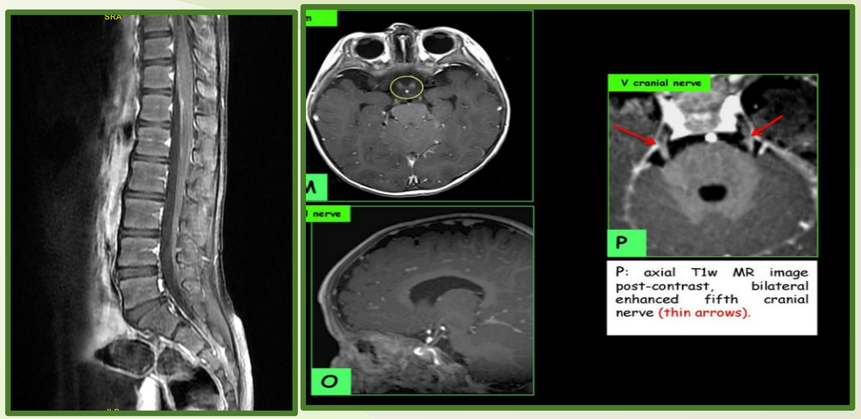
Introduction and Objective

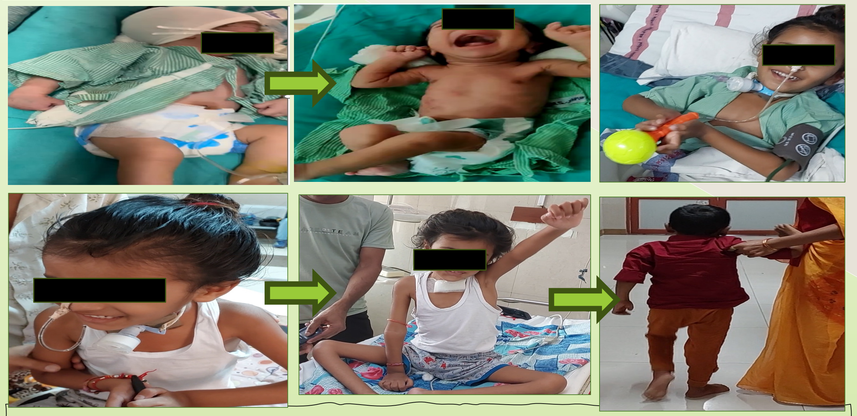
- GBS (Gullian Barre Syndrome) is acquired **autoimmune post-infectious** polyneuropathy, **monophasic** disease.
- The sequelae can be in form of long-standing, **troublesome deficits**.
- Clinicians worldwide equate improvement to independent ambulation without respiratory support.
- There is scarcity of data regarding residual hand function.

The primary aim was to study outcome in terms of fine motor movements and dexterity affection in patients suffering from GBS.

Materials and Methods

- All diagnosed cases of GBS were enrolled, offered acute care and followed up on OPD basis next 6 month post discharge.
- Disability was assessed quantitatively by **ONLS** (overall neuropathy limitation scale score) and **GBS Disability Score**, applied at discharge and at 6months on OPD basis.





Conclusion:

1. Despite aggressive immunotherapy, patients of GBS can continue to have **long term fine motor deficits leading to disabilities.** Thus, early institution of neurorehabilitation in these patients is crucial.
2. **MRI** can be a **sensitive investigation** for timely and accurate diagnosis in case of dilemma.

Results

- Fifty-two GBS patients were admitted with a mean age of **7.6years** (0y-17y). The male: female ratio was 3:1.
- **46%** (24) patients required **ventilatory** support. Average duration of hospital stay was 7days and 32 days for ventilated and non-ventilated patients respectively.
- The **GBS disability score >4** was present in 55.7% while it reduced to 9.6% at 6months.
- The **arm score >3** of the ONLS was present in 57.6% and 40.3% patients at discharge and at 6months follow-up while **leg score of >3** was seen in 92.3% and 21.1% respectively.
- There was statistically significant affection of hand function even after 6months of affection (p-value<0.05) compared to leg function in these patients.
- Fifty out of 52 **(96.1%) had cauda nerve root** enhancement on CEMRI.

References:

Estublier B, Colineaux H, Arnaud C, Cintas P, Baudou E, Chaix Y, et al. Longterm outcomes of paediatric Guillain–Barré syndrome. Dev Med Child Neurol. 2024;66:176–186. https://doi.org/10.1111/dmcn.15693