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# A Study of Prognostic Predictors in Guillainbarre Syndrome in GGH, Kakinada.

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**ABSTRACT**
GBS causes very rapidly progressing diffuse proximal and distal muscle weakness of the four limbs, sensory loss symptoms with areflexia. The maximal weakness is reached within duration of 4 weeks as given by definition. Cranial nerve involvement with Facial, bulbarmusclepalsy andweakness of respiratory muscle is frequent along with autonomic nerve involvement.Inspite of the demonstrated efficacy of intravenous immunoglobulins (IVIg) and plasma exchange, GBS still remains a disabling disease in a significant proportion of patients.Prognosis of the disease and potential predictors of clinical outcome in the illness have been studied in government general hospital,Kakinada.
**Key words:** Guillain barre syndrome, Intravenous immunoglobulin.

## I. INTRODUCTION

Guillain-Barré syndrome (GBS) is an acute, frequently severe, and fulminant polyradiculoneuropathy that is autoimmune in nature.The syndrome is named after the French physicians ―Georges Guillain and Jean Alexandre Barre. GBS is one of the commonest acquired peripheral nerve demyelinating disorder, its an acute, usually post infectious neuropathy.

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## II. METHODOLOGY

Prospective observational study of 50 patients with GBS diagnosed clinically in ggh kakinada were enrolled and followed for 1 year. Medical research council (MRC) sum score was used for valuing the muscle strength. Cranial nerve involvement was examined clinically. Single breath count of less than 15 indicates a dangerous low forced vital capacity (FVC).Sensory system were examined by clinical examination and autonomic nervous system abnormalities like blood pressure , heart rate ,ECG were measured. All the patients were uniformly treated with indigenous IVIg. GBS disability score was used for evaluation of functional impact during discharge of patients and during follow up.

## III. RESULTS

**Table 1 : AGE DISTRIBUTION**

| AGE(IN YRS) | NO OF PATIENT | PERCENTAGE |
|---|---|---|
| < 30 | 18 | 36% |
| 31-45 | 13 | 13% |
| 46-60 | 12 | 24% |
| > 60 | 7 | 14% |

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**Table 2 : SEX DISTRIBUTION**

| SEX | NO OF PATIENT | PERCENTAGE |
|---|---|---|
| MALE | 29 | 58% |
| FEMALE | 21 | 42% |

**Table 3 :TIME INTERVAL FROM ONSET TO ADMISSION**

| TIME INTERVAL | NO OF PATIENTS | PERCENTAGE |
|---|---|---|
| < 24 HRS | 35 | 70% |
| > 24HRS | 15 | 30% |

**Table RESPIRATORY DIFFICULTY PRESENTATION**

| RESPIRATORY DIFFICULTY | NO OF PATIENTS | PERCENTAGE |
|---|---|---|
| PRESENT | 15 | 30% |
| ABSENT | 35 | 70% |

**Table : NEED OF VENTILLATORY SUPPORT**

| VENTILATORY SUPPORT | NO OF PATIENTS | PERCENTAGE |
|---|---|---|
| PRESENT | 9 | 18% |
| ABSENT | 41 | 82% |

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**Table AUTONOMIC NERVOUS SYSTEM INVOLVEMENT**

| AUTONOMIC INVOLVEMENT | NO OF PATIENTS | PERCENTAGE |
|---|---|---|
| PRESENT | 9 | 18% |
| ABSENT | 41 | 82% |

Guillain- Barré syndrome (GBS) affects all ages, men more than women .In our study there is more incidence 18 patients in the age below 30 years, followed by 13 patients in the age group of 30-45 years ,and 12 between 45 to 60 years ,about 8 patients were in the age group above sixty years.

Time of presentation to the hospital from the time of onset of symptoms plays a pivotal role in the course of disease, treatment and management of the illness. In our study 35 patients presented before 24 hours and 15 patients after 24 hours. First group had better outcome during the course of the treatment and at the time of discharge.

Respiratory failure is one of the most common serious complications of GBS, if unnoticed, can be life-threatening result with significant morbidity. As study done by RDM Hadden, RAC Hughes had 20 % of incidence, while Teitelbaum J.S. et al had 10 to 30 % incidence. In our study, the respiratory failure was observed in 15 patients with need for mechanical ventilation for around 9 patients due to low forced vital capacity.

Admission to an ICU is necessary if measured values fall below the ―20/30/40 rule‖ that is, the VC falls below 20 mL/kg, MIP above −30 cm H2O, or MEP below 40 cm H20).[153] .Single breath count test is used to monitor the vital capacityAcute dysautonomia is a significant cause of death in patients with GBS.

Tachycardia is most common, usually in the range of 100–120/min, which does not require treatment

Hypertension is seen in one third of patients with GBS and can be labile or be followed by hypotension.Hypotension can be managed by maintaining intravascular volume

In our study 9 patients had involvement of autonomic system, among them 3 died during the course of illness.

## IV. CONCLUSION

Our study the incidence of male population was more as similar to other study group.

The time of onset of symptoms to admission to hospital with less than 24 hours and more than 24 hours had no significance over the mortality in the end. But early presentations to the hospital had better improvement in the power. The days of administration of IVIg for 3 and 5 days had no significant outcome in the mortality of the patients.

For patients without respiratory distress and mechanical ventilation had better outcome in prognosis than with the support of it.Further involvement of autonomic system should be diagnosed early to prevent morbidity.Cranial nerve involvement should be clinically diagnosed at the time of admission to prevent further deterioration.

Electrophysiological diagnosis of the cases to delineate the subtypes of GBS plays a pivotal role for supportive care and in-depth management of AMAN type of GBS.

Our study brings out various predictors in GBS patients still certain predictors has more morbidity and poor outcome. Although many predictors are involved in the survival of the patients, careful clinical examination and electrophysiology with intense treatment and supportive care may help in preventing the mortality rate in GBS and achieving good prognosis.

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