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Case Report on Guillain-Barre Syndrome (GBS) in Adult

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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Case Study

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ABSTRACT

Introduction: Guillain-Barre-syndrome is when the immune system attacks the peripheral nervous system were disease progresses to trembling and muscle weakness in both hands and legs, which progress to upper body and arms.
Clinical Findings: High grade intermittent fever, low back pain, B/L LL weak, urinary incontinence which is intermittent in nature.
Diagnostic Evaluation: Neurological examination- revealed B/L UL and LL weakness, acute onset of quadriparesis. X-Ray – revealed normal sinus rhythm. CSF examination – revealed No RBC; No pus cell; No Organism seen.
Lab investigation – Hb% 10%, total RBC count 4.45, total WBC 10400, total platelet 2.33, SGOT 226 SGPT 83, Peripheral Smear RBCs **-** Normocytic Normochromic platelets adequate smear no Haemoparasite seen. Blood Culture: revealed Growth of Acinetobacter species.
Therapeutic Intervention: Inj. Optineurone 1gm, Inj.Pantop 40mg, Tab.PCM,Inj. Tramadol 500mg, Immunoglobin (Ig) 100ml , physiotherapy and supportive therapy.
Outcome: The symptoms and clinical state of the patient improved over time. The patient's weakness began to improve after 5 days of IV-Ig therapy.
Conclusion: The patient was hospitalised to the neurosurgery ICU AVBRH on 05/06/20 with the known case of guillain-barre syndrome-(GBS). After receiving therapy, she showed significant progress.

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Keywords: Guillain barre syndrome; quadriparesis; acinetobacter species.

1. INTRODUCTION

Guillain-Barre-Syndrome often referred to as Landry's paralysis or post-infection polyneuritis. It is unaffected by itself. The most common treatment for neuropathy is allopathic medicine.GBS is not a traumatic condition; it is paralytic in peripheral regions the occurrence of this disease is very rare were it affects between 0.4 and 1.7 million persons each year [1]. GBS has two subtypes: acute motor atonal neuropathy and acute inflammatory demyelinating polyneuropathy [2].

GBS has a relatively good prognosis, but it is a devastating disease with a mortality rate of about 10% and a severe disability rate of about 20%. It is characterised by shivering and muscle weakness which start from legs and makes way up to upper torso and arms as the disorder advances. Muscle short coming can proceed to paralysis in nearly 10% of persons with the arms or confront.Signs and side effects of guillain-Barre disorder may include prickling pins and needles [3].

The symptoms includes such as weakness in legs that transfers to upper body, were patient experience tingling sensations in finger, toes, legs, and wrist, as well as unstable strolling or failure to walk or climb stairs. Bladder control or bowel dysfunction modes cause throbbing shooting aches or cramps, especially at night [4].

It is acutely intermitted in 52 years old female patient the symptoms of incapacity to move and stand, swallowing difficulties and difficulty in lifting weight. During hospitalization, the lab and blood tests revealed that she had GBS. And it would be treated if substantial results were obtained. The suffer extremities become increasingly feeble in this situation as guillain-barre syndrome is an uncommon and rapidly progressing disease due to nerve irritation (polyneuritis), muscle weakening develops, eventually leading to full paralysis every year, roughly one or more persons are infected with GBS [5].

2. PATIENT IDENTIFICATION

A female patient age 52 year old patient admitted in AVBRH hospital Sawangi (Meghe) wardha on date 02/06/2021 with the chief complaint of fever, low back pain in post iliac part, progressive B/L LL weakness after all investigation patient diagnose guillain-barre syndrome.

3. PRESENT MEDICAL HISTORY

Patient admitted in neuro (ICU) on dated 02/06/2021, difficulty in lifting both arm above the shoulder difficulty in lifting a weight, cough which is non productive continuous revealed on sitting position. Patient was incubated and kept on mechanical ventilator as viewed fall in saturation and poor GCS.

4. PAST MEDICAL HISTORY

From last ten months, my patient had a medical history of type 2 diabetes and was on Tab. Metformine 500mg (BD). Patient also has systematic hypertension for 10 month and is taking Tab.Envas 2.5 mg (OD); and also has hypercholesterolemia in the past 10 month and is taking Tab.Asprin 75 mg.

5. FAMILY HISTORY

There no congenital and abnormal genetic or hereditary disease health history of patient and previous family history regarding GBS.

6. CLINICAL FINDINGS

Patient had High grade intermittent fever, low back pain, B/L LL weakness, urinary incontinence which is intermittent in nature.

7. ETIOLOGY

Viral or bacterial infection of the gastrointestinal or upper respiratory tract, campylobacter jejuni gastroenteritis, both cellular and humoral immune cause, any surgery and trauma may also trigger GBS.

8. PHYSICAL EXAMINATION

Physical examination was remarkable as it showed upper extremity difficulty in lifting both arm above the shoulder, difficulty in holding light weight objects, neurological examination revealed left side was more impaired, hyporeflexia with progressive proximal muscle weakness. Height 152cm weight 58kg.

9. DIAGNOSTIC ASSESSMENT

9.1 X-Ray

X-Ray was done which revealed normal sinus rhythm;

9.2 NCS (Nerve Conduction Studies)

NCS (Nerve Conduction Studies) was done which detected absent F-waves in both common peripheral nerves and tibial nerves with absent H-reflexes bilaterally.

9.3 CSF Examination

Revealed No RBC; No pus cell; No Organism seen.

9.4 Blood Culture

Revealed – Growth of Acinetobacter species.

9.5 Lab Investigation

Showed in Table 1.

10. THERAPEUTIC INTERVENTION

10.1 Nursing Management

1. Providing Symptomatic treatment.
2. Observing continuously for adequacy of respiratory effort'
3. Continuous ECG monitoring.
4. Supportive nursing care measures indicated by the patients degree of paralysis.

11. DISCUSSION

A female age 52-year-old, admitted to neuro - surgery ICU in AVBRH on dated 02/06/2012 with case of guillain-Barre syndrome (GBS), she is fully cognizant and oriented to time, place, and person, and she obeys all directions, but her limbs do not respond. Immunoglobulin (Ig) has been intravenously given to the patient. Now since she is unable to breathe own and is continuously having tachycardia the patient is placed on invasive mechanical ventilator. After getting the treatment she showed a great improvement and the treatment was still going on till my last date of care.

A study was conducted the median age of 1076 persons with GBS infection was 52 years, 51 percent were male, and 89 percent had at least one chronic medical condition. Skin and soft tissue, urinary tract infections were seem to be the most prevalent (39 percent), followed by infections (23 percent) , bone and joint infections (16%), and bloodstream infections (16%). (11 percent). Polymicrobial infections were responsible for 40% of all infections. GBS-related hospitalisation was reported to be 73 per 100 000, 68 per 100 000, and 100 per 100 000, respectively, for patients aged 18–64 and 65 years. There were 3.7 non-invasive GBS cases for every invasive GBS infection [6].

Table 1. Complete blood count

Sr.No.	Name of Investigation	Patient Value	Normal Value	Inference
1.	Hb%	10%	13.5-17.5%	Decreased
2.	Total RBC	4.45millions/cu.mm	4-5.2millions/cu.mm	Normal
3.	Total WBC	10400/cu.mm	4000-11000/cu.mm	Normal
4.	Total Platelet	2.33lac/cu.mm	2-4.9lacs/cu.mm	Normal
5.	Peripheral Smear RBC:	Normocytic Normochromic platelets adequate smear no Haemoparasite seen.		

Table 2. Medical management

Sr.No.	Name of the Drug	Doses	Routes	Frequency's	Actions
1.	Inj. Optineurone	1gm	IV		Multivitamin
2.	Inj.Pantop	40mg	IV	OD	Antacid
3.	Tab.PCM	500mg	Orally	SOS	Antipyretic
4.	Inj. Tramadol		IV	OD	Analgesic
5.	Immunoglobin (Ig)	100ml	IV		to restored Ig

Similarly, 403 GBS patients were included in the study (62 percent were under the age of 60, 35 percent were between the ages of 60 and 80, and 3% were over the age of 80). According to the National Institute of Neurological Disorders and Stroke, GBS was diagnosed (NINDS criteria). At nadir, severe disability (GBS disability score of >3), as well as mortality, were more likely in old patients compared to young individuals (p = 0.0001) (9% vs 2% respectively). Acute motor and sensory axonal neuropathy, as well as hyponatremia, were shown to be more common in elderly individuals (12 percent vs. 6% and 27 percent vs. 18 percent, respectively, p = 0.04). A positive history of malignancy was found to be more than three times more likely in elderly patients than in younger patients (11 percent vs. 3%, respectively, p = 0.01). Disability on nadir was equal in young-old and old-old participants, but disability on discharge was more severe in the old-old (p = 0.04), implying a delayed recovery [7].

Adults with Guillain-Barre syndrome must be treated with IVIg, which is as effective as Plasmapheresis (Level A). IVIg is safe and effective in the long-term treatment of chronic inflammatory demyelinating polyneuropathy (Level A). IVIg is likely to be useful in the management of myasthenia gravis with multifocal motor neuropathy in patients with moderate to severe muscular dystrophy (Level B). In adults, IVIg may be beneficial in the treatment of Lambert-Eaton myasthenic syndrome and nonresponsive dermatomyositis (Level C). There is insufficient evidence to support or refute the use of IVIg in the treatment of immunoglobulin M paraprotein–associated neuropathy, inclusion body myositis, polymyositis, diabetic radiculoplexo-neuropathy, or Miller Fisher syndrome, or in the routine treatment of post polio syndrome or in children with GBS (Level U). GBS should not be treated with IVIg coupled with Plasmapheresis (Level B) [8]. The condition is more common in males than females. Other GBS studies were looked at to see how the clinical outcomes fared [9-11].

12. CONCLUSION

GBS is a complex condition, and the most critical frequent care is needed to patients. Early diagnosis is highly crucial to prevent the patient from developing severity of disease. My patient shown great improvement after getting the treatment and the treatment was still going on till my last date of care.

ETHICAL APPROVAL

This information was obtained from the institution's ethics committee.

CONSENT

As per international standard or university standard, patient’s written consent has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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