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Case Report on Guillain-Barre Syndrome

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ABSTRACT

Introduction: The arrival of Guillain-Barre Syndrome is sudden. It's a type of neuropathy caused by the immune system. Nutrition is very crucial. In impoverished countries, it is disabled disease. Auto antibodies against diverse antigens can be seen in outlying site. The occurrence linking 0.4 to 1.7 million individuals per year.

Case presentation: A 5-year-old boy was taken to the hospital with chief complaints of Weakness in bilateral upper and lower limbs, trouble in swallowing, inability to hold neck, mouth frothing, fever spikes. On physical examination, the patient has experienced weakness in bilateral upper and lower limbs, bulbar weakness is present, pain experiencing in both legs, gag reflex is absent, In "Cardiovascular System, S1 and S2 sound are present, In Respiratory System, Air entry is bilaterally equal, pupils are reflected to light, tone and power of upper and lower limbs are decreased", then treatment was started as soon as possible, he has not improved after receiving treatment, and the patient is on ventilator support, with treatment continuing until the end of my care.

Conclusion: In this study, we primarily focus on professional management and outstanding nursing care may give the holistic care that Guillain Barre Syndrome requires while also effective managing the challenging case. The comprehensive health care team collaborates to help the patient achieve his or her prior level of independence and satisfaction after a full recovery.

Key words: Guillain-barre syndrome, Nutrition, Ventilator

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INTRODUCTION

"Guillain-Barre syndrome (GBS)" is an autoimmune fulminant polyradiculoneuropathy that manifests as a severe fulminant polyradiculoneuropathy. "Guillain- Barre Syndrome" is the most prevalent cause of acute or subacute generalized paralysis, and it used to be second only to polio in term of prevalence. Landry-Guillain-Barre-Strohl syndrome and acute inflammatory demyelinating polyneuropathy (AIDP) are another name of "Guillain-Barre syndrome". Global annual incidence is estimated to be 0.6–2.4 cases per100,000 individuals. Men are almost 1.5 times as likely than women to be harmed. In North America and Europe, Acute inflammatory demyelinating polyradiculoneuropathy (AIDP) is the most frequent subtype, accounting for 90% of all cases [1].

Guillain-Barre-Syndrome is the most common causes of neuromuscular paralysis. Guillain-Barre-Syndrome is divided into subtype. "Acute motor axonal neuropathy (AMAN) and acute inflammatory demyelinating polyneuropathy (AIDP)" [2].

The weakening of the limbs, known as areflexia, and paralysis are the most common symptoms. Miller Fisher Syndrome is a condition that is like "Acute motor axonal neuropathy and acute inflammatory demyelinating polyneuropathy, Miller Fisher Syndrome" is one of the most frequent disorder. It's an immune mediated illness. Ataxia, areflexia symptoms are seen in various diseases. Immunoglobulin and plasma exchange are used to treat this condition [2].

Patient information

A 5-year-old boy was taken to the Acharya Vinoba Bhave Rural Hospital with the chief complaints of Weakness in bilateral upper and lower limbs, trouble in swallowing, inability to hold neck, frothing from mouth, fever spikes. Guillain-Barre Syndrome was discovered in him. He showed no improvement after treatment, and the patient status was unstable, he couldn't maintain saturation and patient was intubated on Ventilator support. The Patient's family is from a middle-class background. His family members were free of both communicable and non-communicable disease. He and his family had good interpersonal relationship with relatives and neighbours and other family members. The Ryle tube was inserted. He has a Fever (102°F) when he gets admitted. Blood test, cerebrospinal fluid examination, coagulation profile, "liver

function test, kidney function test, T3, T4 and TSH" were done. Administration of immunoglobulin therapy, intravenous fluids, antipyretic, multivitamins, potassium, antibiotics, amino glycosides, glucocorticoids, anti-allergic as per physician orders.

Physical examination

On physical examination, the patient has experienced weakness in bilateral upper and lower limbs, Bulbar weakness is present, pain experiencing in both legs, gag reflex is absent, In cardiovascular system, S1 and S2 sound are present, In respiratory system, air entry is bilaterally equal (AEBE), pupils are reflected to light, tone and power of both upper and lower limbs are reduced, plantar reflex is not examined and then treatment was started as soon as possible.

Diagnostic assessment

Blood test: Hb-11.3%, Total RBC count-4.36 millions/cu.mm, total WBC count- 5100/cu.mm, Total platelet Count-4.59lacs/cu.mm. In Cerebrospinal Fluid Examination, Glucose-CSF-72mg%, Protein-CSF-105mg/dl, Lactic Dehydrogenasis-58I.U/L, PH-7.5. Prothrombin time-control-12.50secs, Prothrombin time-patients-20.60secs, INR-01.64, APTT-Control-30 secs, APTT- Patient- 36.30ecs in the Coagulation profile, Protein-9.9g/dl, Globulin-5.9gm/dl in liver function test. test, urea, creatinine, sodium, potassium, T3, T4 and TSH were all normal reading in the renal function test.

Medical management

On admission, the patient is oriented with person and place, after getting treatment, he displays no response to treatment and does not sustain saturation, and his status is unstable. he was intubated on Ventilator support, after an intravenous line was implanted. Inj. Potassium chloride 3ml in 300ml DNS IV HS, Inj. Meropenem 600mg IV HS, Inj. Amikacin 200mg IVOD, Inj. Vitamin k 5mg IVOD for 3 days, Inj. Multivitamin 3ml in 100ml Normal Saline IV OD, Inj. Fentanyl 15mg IV HS, Inj. Neomol 23ml IV SOS, Inj. Ceftriaxone750mg IV BD, Syp. Zincovit 5ml orally BD, Syp. Zinconia 5ml orally BD, Inj Globucel 10% 5gm in 50ml solution IV 2 hourlies, Syp. Paracetamol 5ml orally SOS administered as per physician orders.

Nursing management

Vital indicators were meticulously recorded. His condition is not stable, he shows no reaction to treatment and does not sustain saturation. At intensive care unit, he is intubated on Ventilator support. Examine for all the reflexes. The nurse will need to work diligently to assist the patients with "Guillain- Barre Syndrome". Aspiration should be carefully assessed in patients who have difficulty in swallowing due to muscles weakness. When the metabolic demand is significant, patients on Ventilator require Enteral and parental feeding to ensure that their caloric needs are satisfied. Early and gradual introduction of nasogastric tube feeding is recommended. To prevent muscles atrophy and aid respiratory weaning, a high protein, carbohydrate diet is recommended. Vitamin B is recommended to aid in the healthy functioning of the nervous system. Excellent nursing care was provided as reported by patient family members reported to nursing staff. Increased respiratory function, promoting of physical mobility, reduced anxiety, and suffering, improve of parental care and reduce the risk of complications by intervening.

DISCUSSION

A 5-year-old boy taken to Acharya Vinoba Bhave Hospital on 20/05/2021 with the chief complaints of Weakness in bilateral upper and lower limbs, trouble in swallowing, inability to hold neck, frothing from mouth and fever spikes. After all the investigation and physical examination were completed. He was diagnosed with "Guillain-Barre Syndrome". he has not responded to treatment the is not sustaining saturation and patient state is not stable after treatment. At intensive care unit, he is intubated and on Ventilator support. Excellent nursing care was given and continues to be provided till the end of my stay.

In this study, Guillain-Barre-Syndrome was used as part of the alpha fetoprotein surveillance system in this investigation, which is an incredibly sensitive monitoring system intended at the global eradication of poliomyelitis that is in use in many countries, including the Sultanate of Oman, and is supervised by the World Health Organization. "Guillain-Barre syndrome" was found in 20% of AFP case, while 45% of Guillain-Barre-Syndrome was seen with IVIG and plasmapheresis. Administration of IVIG, a recurrence rate ranging from 1.4 % to 46.7% and 16 was documented. Though there were initial indications of one modality of treatment having more relapses than the others, in an editorial on IVIG, plasmapheresis and plasmapheresis followed by IVIG 383 patients randomly divided into 3 groups, suggested that the prognosis was similar in all three groups after 4 weeks of initialtreatment.17 after 48 weeks of follow up, these three regimens had similar results [3].

Although Guillain-Barre-Syndrome is as very modest cause of acute flaccid paralysis in children, "it is the most common cause of acute flaccid paralysis in infants and children in the post-polio era. GBS" affects individuals all age groups. We recruited 20 participants aged 18 (range 16 months to 17 years) In our case study, the majority pf them (55 percent) were in the 6 to10 year age group [3]. In their study of 61 children under the age of 15 years with Guillain-Barre-Syndrome, they discovered that most of the children with "Guillain-Barre-Syndrome" were under the age of four, with only one instance in the 10-15year age range. This was thought to be owing to exposure to various diseases, toxins, and increased susceptibility of immature myelin to demyelination, according to the author [4]. In our analysis, we discovered a male preponderance with a male to female ratio of 2.3:1. In their analysis, they discovered a male preponderance, with a male to female ratio of 1.5 to 1.5.

The study collected information in the neurology department from 36 "Guillain-Barre-Syndrome" patients >eighteen years of age. The study was aimed at identifying and comparing the clinical and epidemiological profile of GBS in adults with previous studies. Most studies have been performed in children, adults, and children alike. In this study, there were 22 (61.1%), <40 years of age and 14 (38.8%) >40 years of age. Thirty-five years was mean age. In most studies, the sex ratio showed slight masculine prevalence. This trend was also observed in the current study for men representing 21 (58.3%) of the GBS cases. In this study, the 14th prevalence Rainy (June-September) (38,8%) was observed followed by winter (December – September) 11 11. (30.5 percent), GBS without seasonal preference was considered sporadic. In many studies, 40-70 percent of patients were admitted with or associated infection. 23 (63.8%) of patients had preceding infections in our study. 33 percent of respiratory and gastrointestinal infections were reported 22 % [5,6]. Cases of Guillain Barre syndrome with variable features were reported by Hussain et al. [7], Yadav et al. [8], Balwani et al. [9], Wajpayi et al. [10]. Related studies on peripheral neuropathies and similar symptoms were reviewd [11-13].

CONCLUSION

Guillain-Barre-Syndrome is neurological disorder. The peripheral region is disrupted in this disorder. The lower extremities grow weak because of this condition. Patient is unable to walk, stand, or run because of a medical condition. It would be diagnosed after the required tests and labs were completed. This could be a life- threatening situation. Immunoglobulin IV, plasma exchange and palliative care are all options for treatment. When IVIG is given "early in the course", it improves recovery. Plasmapheresis may be a cost-effective treatment option for patients who have had a poor response to IVIG. Assisted ventilator and tracheostomy may be needed in some patient with respiratory paralysis. He showed no responsiveness to treatment after seeking treatment, and his condition is not stable, and treatment was still ongoing until my last day of care. The comprehensive health care team collaborates to help the patient achieve his or her prior level of independence and satisfaction after a full recovery.

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Nil.

DECLARATION OF PATIENT CONSENT

The investigators state that all applicable patient consent documents have been received. The patient(s) consented to record his / her photos and other clinical material in the article in this manner. The patients recognise that they would not publish their names or identities and make fair attempts to hide their identity, but no anonymity can be assured.

CONFLICT OF INTEREST

The are no conflicts of interest in this work.

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