



## **A Case Report On: Guillain – Barre Syndrome**

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### **Authors' contributions**

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

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**Case Study**

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## **ABSTRACT**

**Introduction:** Guillain berry syndrome is also called as landry's paralysis. It is the disorder included in the peripheral neuropathy. In guillian berre syndrome, the patient's body's immune system attacks on the nerves. This condition may also triggered by the bacterial infections as well as some of the viral infections. GBS is a rare syndrome approximately there were only 1-2 cases per 1,00000 people annually. Men are more likely affected than that of womens. This syndrome is names after a French physicion Gorgous Guillian and Jean Alxzandre Barre and strohl who described it in 1916.

**Clinical Findings:** weakness, difficulty in breathing, difficult to hold the breath till 5 second, fatigue, elevated blood pressure, difficulty in speaking.

**Pheripheral Smear:** RBCS \_ normal range, atrophy is seen.

**Ultrasonography:** Enlargement of vagus nerve.

**Therapeutic Interventions:** DNS 380 ml intravenous, plasma exchange therapy, inj. Ceftriaxone, syrup Phenytoyin 9.5 ml. syrup rdpn 10 ml. syp calcimax 10 ml, tab folic acid 5 mg, tab limcee 500 mg, tab baclofenac 10 mg, NEB 3% NACL, inj pantop 15 mg.

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**Outcomes:** After the treatment, the child shows improvement. His weakness and fatigue get relieved and pain in muscle had relieved.

**Conclusion:** A 5 years old male child was admitted in the pediatric ward no. 18 , Acharya Vinoba Bhave Rural Hospital on date 31 July 2021 with a case of Guillain Barre Syndrome (GBS). He had the complaint of weakness, fatigue, lack of co-ordination, difficulty in swallowing .After getting an appropriate treatment, the patient's condition has improved than that of previous.

**Keywords:** *Guillain Berre syndrome; extremity; weakness; peripheral neuropathy; peripheral nerve pain; bacterial.*

## 1. INTRODUCTION

A 5 years old male child with his parents visits Acharya Vinoba Bhave rural Hospital because of neuromuscular complaints, usually those that involve the neck region and the upper extremities . "A Male Child of Age 05 Years Old from Karimabad, Ward Was Admitted to Pediatric Ward 18 Acharya Vinoba Bhave Rural Hospital on Date 31 July 2021 with a Chief Complaint of Pain in the Tooth , Difficulty in Swallowing Muscle Ache and Fatigue. His Activity Level Is Less than That of Normal. He Was Known Case of Guillain Barre Disorder, Which Was Diagnosed When He Was Admitted in the Hospital on 31st June 2021 . Pheripheral neuropathy is one of the commonly encountered conditions in the clinical practices. Poor diet, lack of attention to the child , improper immunization, are some of the common reasons for the peripheral neuropathy i.e Guillain Berre Syndrome. It is the rare type of the disorder.

Guillain Berre disorder is one of the complicated neurological disorders which is degenerative as well as acute or chronic in nature. It is the condition which is characterized by progressive, proximal and distal tingling or loss of sensation is the common symptom. Death is rare, the demyelination of the spinal nerve occurs in this disease state.

Guillain Berre Syndrome is occurred within few days or weeks by following some bacterial or viral infections. The most common type of Guillain Berre Syndrome is an acute inflammatory demyelinating neuropathy in which the myline sheath gets demyelinated. The causes of the Guillain Berre syndrome is not known. As it is an autoimmune disorder the self immunity. The exact cause of Guillain Berre Syndrome is unknown .as it is an autoimmune disease. Both the cellular and humoral immune mechanisms play a role in the immune reactions focused at the nerv. then it results with the demyelination and inflammation of the neurons. Then the

transmission of nerve impulses is stopped or get slowed. muscles innervated by damaged peripheral nerves undergo in atrophy here, atrophy is the condition in which the size of organ and the cell gets decrease or shrink. In the recovery phase, remyelination occurs slowly and neurologic function returns to proximal to distal way. Most of the Guillain Berre Syndrome cases follow a bacterial or viral infection of gastrointestinal or upper respiratory tract infection . The most common virus that causes Guillain Berre Syndrome is cytomegalovirus jejuni and the most common bacterial is gastroenteritis any surgery or trauma may trigger the Guillain Berre Syndrome. the patient of 05 years old was going through the certain types of investigations and he was diagnosed with the Guillain berre syndrome.

## 2. PATIENT IDENTIFICATION

A male child of age 05 year old from karamabad Wardha brought by his parents to Acharya Vinoba Bhave Rural Hospital on 31st July 2021 and admitted to pediatric ward no.18 with a symptoms of Guillain Barre Syndrome. He was 15 kg in weight and 120 cm in height with slightly elevated blood pressure, and respiration are 32 BPM.

### 2.1 Past Medical History

A male child of age 05 years old was brought to Acharya Vinoba Bhave Rural Hospital on date 31 July 2021 by his parents with the of multiple complaints of weakness, fatigue and pain in the tooth as well as difficulty in swallowing.

### 2.2 Family History

There are four members in his family his parents, elder sister and the client. A 05 years old patient was admitted in hospital was diagnosed with one of the disorders of polyneuropathies. I.e Guillain Berre Syndrome. His parents are normal. patient's sister is also normal and living a normal life style. The patient was only one in his family

who is suffering from this disorder otherwise other members in the family were alright with no any history of illness.

### 2.3 Past Interventions and Outcomes

The 05 years old patient was brought to the Acharya Vinoba Bhave Rural Hospital was diagnosed with the Guillian Berre Syndrome, when he was 5 years old and he was admitted in the Acharya Vinoba Bhave Rural Hospital on date 31 June 2021. He has no any past medical history of these types of diseases. He was admitted in the hospital and taking treatment from near about 5 to 6 months. he treatment include mostly the immunity boosters and vitamin supplements etc. The patient doesn't develops any complications till then. the physicians are trying to minimize his symptoms by performing diagnostic evaluations on him. A nurses has perform various types of therapeutic nursing interventions on the patient such as provide proper needed care to him, educate his parents about the disease condition, provide emotional support to the patient's family, gave all the medications prescribed by the doctor on a proper given dosage.

### 3. CLINICAL FINDINGS

Fatigue, elevated blood pressure (94 /112), muscle ache, tooth pain, difficulty in swallowing, pulse (90 Beats Per Min.) breathing 32 Breaths Per Min and palpitations, difficulty in holding the breath. Compromised immune system.

### 4. ETIOLOGY

As the exact etiology of Guillian Berre Syndrome is unknown ,the exact cause of Guillian Berre Syndrome is not discovered till now. It is the disorder in which the body's immune system attacks on the body's self immunity. It is both and acute or chronic. It is mainly an acute, progressive autoimmune inflammatory demyelination of the myelin sheath of the neuron. The severity of the syndrome is depends upon which type of the the Guillian Berre Syndrome. occurs in the patient. Both viral and bacterial factors are responsible for the disease. The viral causes include cytomegalovirus and compalobacter jejuni 26-41% , while the bacterial cause include respiratory tract infections i.e mycoplasma pneumonia. Some vaccines like rabbies and Avian flu influenza can develop the symptoms of Guillian Berre Syndrome in the

children. And the factors that triggers the syndrome are surgery done like tracheostomy. Surgery may increase the risk of Guillian Berre Syndrome. but the immunity is responsible for the disorder as it is an autoimmune type of disorder Guillian Berre Syndrome is non hereditary or contagious.

### 5. PHYSICAL EXAMINATION

There is an abnormality found in head to toe examination. The patient is thin an looks dull by face. cooperating his surrounding people actively due to the lot of days staying in the hospital. he is weak and not so cooperative. Though it is found that the child had undergone the procedure of tracheostomy the physician is also done his Ultrasonography which shows normal renal Doppler study.

### 6. DIAGNOSTIC ASSESSMENT

All the diagnostic assessment has been done by the physician like Blood tests which indicates that the Hemoglobin estimation is - 10.7 gm% ,Platelets were 250000 platelet per ml of blood ,Red Blood Cells were 4.9 million Red Blood Cells per ml of blood ,Monocytes were 03 % ,Erythrocytes - 02% , MCHC - 34.2 gm/dl , MCH- 24.7 pg.

#### 6.1 Ultrasonography

Enlargement of the vagus nerve.

#### 6.2 Therapeutic Interventions

A 5 years old patient was brought by his parents to Acharya Vinoba Bhave Rural Hospital on date 31 July 2021 after all the investigation done, he was diagnosed with Guillian Berre Syndrome and further medication were started to the patient i.e , Intravenous infusion of DNS 400 ml + injection MVI 4 ml, syrup phenytoin 9.5ml orally as per suggested ,syp calcimax 10ml orally twice a day ,Tablet Folic acid 5mg orally twice a day o, Tablet Neurobian once a day ,Tablet Limcee 500 mg once a day ,tab beclofen 10 mg twice a day, NEB 3% NACL , tab Zolam 0.5 mg as per need.

#### 6.3 Nursing Prospective

Assessed the general condition of the patient. Monitored his vitals and recorded on the regular basis. planned his nursing care plan on the basis of his diagnosis, and planned the care for the

patient. The nurses should give proper care and attention to the patient as he was In preschooler age he deserves the proper care and all the interventions and diet that used to give to the preschooler age. when the patient is taking antibiotics the nurses should assess for the adverse reactions and assess the bioavailability of the drug. Also, the nurses have to encourage and provide Health education related to the diet, exercise, nutrition and some mild exercises to the patient's parents so that they get the treatment more effectively for their child.

## 7. DISCUSSION

A male child of age 05 years old from karamabad, wardha was admitted to pediatric ward 18 Acharya Vinoba Bhave Rural Hospital on date 31 July 2021 with a chief complaint of pain in the tooth , difficulty in swallowing muscle ache and fatigue. His activity level is less than that of normal. He was known case of Guillain Berre disorder ,which was diagnosed when he was admitted in the hospital on 31st June 2021 . As soon as he was admitted in hospital. All the investigation are done and an appropriate treatment were given to the child. After getting an appropriate required treatment, he shows a great improvements and the treatment is still going on till my last date of the care .A study was done on guillian berre syndrome they studied the occurrence rate of the disease in India for the study, patient's case sheets were collected. Guillain Berre Syndrome is also known as landry's paralysis, it can be acute or chronic inflammatory demyelinating polyradiculopathy. It is very rare type of syndrome which is occurs only 1 in 100000 and higher in men than that of womens. It is also classified as one of the most common neurological defect , in which the vagus nerve may affect and the coordination of the body get disturbed. Guillain Berre Syndrome is a heterogeneous condition with the symptoms ranging from light to severe. Guillain Berre Syndrome is also known as landry's paralysis, it can be acute or chronic inflammatory demyelinating polyradiculopathy. It is very rare type of syndrome which is occurs only 1 in 100000 and higher in men than that of womens.it is also classified as one of the most common neurological defect , in which the vagus nerve may affect and the coordination of the body get disturbed. Guillain Berre Syndrome is a heterogeneous condition with the symptoms ranging from light to severe. Cranial nerve involvement is manifested as facial weakness and paresthesia extraocular eye moment

difficulties, and dysphagia. Pain is the most common symptoms of the patient with Guillain Berre Syndrome it can include muscular pain, severe or acute cramps and it appears worse at night time. Pain may contribute to the decreased appetite and maintain disturbance with the sleep of the patient. As the patient is toddler it may affect more. One of the most serious and sometimes life threatening complication of the Guillain Berre Syndrome is respiratory failure, which occurs as the paralysis progress is to none of that innervate the thoracic area. The physician need to assess the respiratory system frequently and need to assess for the abnormality of the respiratory rate and depth to determine the need of the immediate intervention including mechanical ventilation and intubation. Researchers believe that the destruction is limited to those area of trunks with an inflammation and direct causes the demyelination. This is all due to the macrophages in the presence of lymphocytes. This harm is also done by T cells.

## 8. CONCLUSION

Guillain barre syndrome is one of the rare syndrome found among the children.It is very important to identify the early stages of the disease conditions to get proper treatment. The patient who was admitted in the hospital has undergone all the investigation and was diagnosed with the Guillain Berre Syndrome he was showing great improvements after getting the treatment and the treatment was still going on till my last day of care.

## ETHICAL APPROVAL

Ethical clearance taken from institutional ethics committee.

## CONSENT

As per international standard or university standard, parental consent has been collected and preserved by the authors.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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