



Case Report on GBS [Guillain Barre Syndrome]

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ABSTRACT:

GBS (Guillain Barre Syndrome) is rare disorder of immune system which attacks the part of your PNS (Peripheral Nervous System) – which are the networks of nerves located outside the brain and spinal cord. The death rate of GBS has varied with a high speed of having the rates between 1 – 18 %. A 48 yrs old male patient was brought by his relatives to the emergency department on 01/09/2023 with the chief complaints of weakness in all the four limbs since 7 days and he was a known case of GBS since 1 month (Received 1.5 IVIG therapy for the same in Nelson Hospital Nagpur). Also he was known case of HTN. Patient was also having the history of slip and fall in the hospital before 15 days. The primary therapeutic intervention was given to the patient in the emergency department and he was admitted to the Neuro ICU.

Keywords : GBS (Guillain Barre Syndrome), PNS (Peripheral Nervous System), Emergency department.

Introduction :

Guillain-Barré syndrome (GBS) is a disorder which is very rarely seen in one of three patients was a disorder of your immune system that indirectly attacks the part of your PNS —which are the connections of different nerves situated outside of your brain and spinal cord. GBS is a condition that ranges from moderate cases that last with the generalized weakness, devastating paralysis, dyskinesia, hyporeflexia, and paraesthesia, which leads breathing difficult independently. Some of the people may also get totally recover from even the most severe cases of GBS, but after the recovery also they may have some kind of degree of weakness.(1) These is a syndrome which can affect the nerves that controls the muscle movements as well as those that transmits pain, temperature and sensations of touch. GBS results in loss of sensations of all the four limbs, weakened the muscle movements and can create problems during breathing and swallowing too. It is a unique condition, that is mostly seen in adults and in males, but people of all the ages can be get affected.(2) . It is an autoimmune disease (which demyelinate the nerves) of specially the peripheral nerve (myelin) which is also known as post infectious polyneuropathy or ascending poly neuropathic paralysis or acute inflammatory demyelinating polyradiculo neuropathy (AIDP). It causes paralysis, Quadriplegia, hyporeflexia, parathesia, difficulty in swallowing, bowel and bladder problem, etc. (3)

Guillain-Barre syndrome is a very vital medical emergency if not taken it seriously it will be very much fatal and may leads to the death of your patient. Most of the people with these type of condition should be get hospitalized quickly to receive the hospital treatment. The actual cause of Guillain-Barre syndrome (GBS) is not known yet. But two-thirds of patients diagnosed with it came with their chief complaints of having symptoms of an infection which may be a respiratory infection or gastrointestinal infection or any other kind of infection in the 6 weeks before. These includes the infections like COVID-19 virus, respiratory or a gastrointestinal infection or any other viruses or infections. There is no any known cure or any exact removing treatment for Guillain-Barre syndrome, but the high doses of intravenous gamma globulin (2gm/kg given over five days) and plasmapheresis shortens the duration and severity, and are recommended to the patients. (4) PE (Plasma Exchange) was a treatment for GBS knowing used during mid1190s as a effective treatment but, research has found that it is having a high risk of [adverse side effects](#) and worse symptoms after the treatment. On the other point of view, IVIG ameliorates treatment of GBS whose action was still unknown has a similar impact as the PE in treating GBS. And was having less complications and risk that's why it is much better than PE. (5) During the hospitalization, some patients are intubated for respiratory failure, and their course can be get further complicated. They were specially kept in the Intensive Care Unit (ICU) for observation and hourly monitoring so that a holistic

care should be provided to them and there will be no chance for inconvenience. As the GBS patients were very prone to other infections and was at risk of having other diseases. (6)

The patient with GBS likely need to receive the medical care in hospital's Intensive Care Unit for hourly monitoring and any other complications. There's no actual cure for GBS but some of the therapies can decrease the severity and may shorten the recovery time. The main treatment for GBS were IVIG and plasmapheresis as we have seen it above.(7) According to the National Institute of Neurological Disorders and Stroke (NINDS), approximately one in three patients will experience the lingering effects in later years. While on other hand some will experience relapse over time. Complications and risk may include chronic pain, difficulty in bowel and bladder movements, respiratory dysfunctions, paralysis, etc.(8)

Case Presentation:

A 48 years old male patient was brought to the EMD on 01/09/2023 with the complaints of having weakness in all the four limbs, and he was known case of GBS since 1 month and was also having hypertension since many years. After providing primary preventive measures to the patient he was immediately shifted to the Neurology Intensive Care Unit due to his critical condition but he was in a conscious state. As he was a known case of GBS since 1 month so he was admitted in the Nelson Hospital Nagpur where he received IVIG therapy and was having a history of slip and fall in the hospital. The patient was lucky not injured.

On physical examination patient was having swelling on all the four limbs, he is also having bedsore, his consciousness has been lost, reflexes was not working, and patient was totally dependent on others. Patient was kept on ventilator and his vitals has been marked continuously everyday with providing proper ventilator care. His multiple investigations were done like CBC, KFT, LFT, MRI Brain screening, MRI cervical spine, ECG, ABG (Arterial blood gas analysis), etc. Also under all the septic precautions Lumber Puncture was done and around 3-5 ml of fluid was obtained and was sent for routine and Microscopic examination. Patient's general condition was not good and he was kept under observation with all the special care given and the prognosis of the patient was not also good, he was at high risk.



DISCUSSION:

A 48 years old man brought in emergency department was actually a known case of GBS since 1 month came with the much worsened condition with the complaints of weakness of all the four limbs was taken to the Intensive Care Unit. Patient had developed bed sore. Patient was on ventilator. Possible all nursing care given to the patient in intensive care. As Individuals with GBS may experience barriers and facilitators which impact prognosis and the patient has not showing the good prognosis yet.(9)

The arrival of signs and symptoms may be came into existence suddenly or gradually. The acute unexpected onset of limb paralysis and the cranial paralysis in patients firstly indicates that it has become stroke. However, the patient symptoms get highly increased to quadriplegia and bilateral nerve palsy, which makes us suddenly realise that patient may have GBS. As seen in my patient in his past history when he first diagnosed with it. (10)

The genuine cause of GBS is unknown, but most cases shows an infection with a virus or bacteria. Which causes your body's immune system to attack his own body by itself. Infection with the *Campylobacter jejuni* bacterium, (which is the leading cause of gastroenteritis) with showing the symptoms of nausea, vomiting and diarrhoea, is the most common cause for GBS and has shown that patient has these infection from *Campylobacter jejuni* prior to the onset of GBS. (11) In an around 75% of total cases, it is seen that the patient shows p1-2 weeks of acute illness with mostly respiratory or gastrointestinal infections before the GBS has occurred. The *Campylobacter jejuni* (*C. jejuni*) infection has become the most known infection and has been seen in up to 32% of GBS cases over all. However, here our patient didn't have history of any kind of infection.(12) The death rate of patients with GBS has varied widely with high rates ranging between 1-18% and was showing an increase in the rate since last few years. The mortality rate has been drastically changed and has made the health care workers to work more and provide more care to fight with the GBS.(13)

The surgeons of different hospitals in Mumbai stated that GBS has high morbidity rates. Neurologists have been highlighted the recent surge, both in terms outpatient and admission cases of GBS.(14) If the patient is diagnosed with GBS treatment should be started right away. (15) There is a holistic care we provide to the GBS patient but the diet was also an important factor in any of the autoimmune disorders. Consuming more bone broth, fermented foods, and leafy vegetables can help boost your immune system and help you stay healthy and keeps you away from the autoimmune disorders. (16)

Conclusion:

In India, mortality rate of GBS is 1-18%. Men are usually gets affected approximately 1.5 times more than women. Currently GBS is having a positive long term outlook and expectancy of life with the imitation of prompt intensive care, and successful treatment of infection. Here we discussed a patient's case who was diagnosed with GBS and was on ventilator. His different kinds of investigations were done and also he has received the IVIG therapy. His physical examination has also shown the bad prognosis.

Additional Information:

Disclosures:

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