

**A CASE REPORT ON GUILLAIN BARRE SYNDROME**Alen Joe Francy\*<sup>1</sup>, Eldho Jose<sup>1</sup>, Sethu Sugathan<sup>1</sup>, S.Hemalatha<sup>2</sup>, K. Menaka<sup>2</sup> and T. Sivakumar<sup>3</sup><sup>1</sup>Pharm D Interns, Department of Pharmacy Practice, Nandha College of Pharmacy, Erode, Tamil Nadu.<sup>2</sup>Asst. Professor, Department of Pharmacy Practice, Nandha College of Pharmacy, Erode, Tamil Nadu.<sup>3</sup>Principal, Nandha College of Pharmacy, Erode, Tamil Nadu.**\*Corresponding Author: Dr. Alen Joe Francy**

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Article Received on 11/10/2017

Article Revised on 01/11/2017

Article Accepted on 22/11/2017

**ABSTRACT**

Guillain-Barre syndrome (GBS) is a heterogeneous group of autoimmune polyradiculopathies, involving sensory, motor and autonomic nerves. It is characterised by motor difficulty, absence of deep tendon reflexes and paraesthesia without objective sensory loss. Etiology of GBS remains unclear and pathophysiology includes demyelination of spinal nerve roots. We present a case of a 46 year old patient who initially presented with the complaints of lower limb weakness for past 1 month and inability to use right lower limb and difficulty in breathing. The patient had tingling sensation and numbness in lower limbs. Based on Cerebro Spinal Fluid (CSF) analysis, sensory and motor system examination finding a diagnosis of Guillain – Barre Syndrome was made. With supportive treatment, the patient had recovered. Continuing physiotherapy, regular monitoring of sensory and motor system with the disease condition makes a profound effect of patient's healthy life.

**KEYWORDS:** Guillain – Barre syndrome, Auto immune disease, CSF Analysis, Motor system examination.**INTRODUCTION**

Guillain - Barre syndrome is a reactive self-limited auto immune disease clinically defined as an acute peripheral neuropathy causing weakness of limb which progress over a period up to 4 weeks.<sup>[1,2]</sup>

In a year, about 100000 people worldwide develop GBS.<sup>[3]</sup> GBS is an acquired condition which is characterised by progressive, proximal and distal tingling and weakness of limbs. Loss of sensation and absent muscle reflexes are common.<sup>[4]</sup> Cerebrospinal analysis in which increased levels in CSF protein ( 0.55g/L) without elevation in white blood cells is a characteristic feature of GBS. In the people who have GBS, about 30% develop respiratory failure, the mechanism behind respiratory failure is the progressive weakness of inspiratory and expiratory muscles.<sup>[5]</sup> Etiology of GBS remain unclear and pathophysiology includes demyelination of spinal nerve roots.<sup>[4]</sup> Early recognition and treatment of GBS also may be important in the long term prognosis.<sup>[6]</sup>

This case report discusses about the history, incidence and pathology of a 46 year old male patient presented with Guillain - Barre Syndrome.

**CASE REPORT**

A 46 year old male patient presented at a tertiary care hospital with complaints of lower limb weakness for past 1 month which is insidious onset and progressive in

nature. He also complained about inability to use right lower limb and difficulty in breathing. No history of trauma or cranial nerve disturbance reported. His social history shows he was a chronic alcoholic and smoker for past 20 years. Patient was unaware of any familiar hereditary disease or similar cases in his family.

The patient had tingling sensation and numbness in lower limbs; also he experienced pain in right hip and knee joint. His motor system examination shows an exaggerated right knee joint reflex and plantar reflex was absent. Cerebrospinal fluid analysis showed slightly increased levels of protein (0.62g/L), the lymphocytes and glucose levels were normal. Laboratory examination revealed elevated WBC , granulocyte and ESR values, suggestive of strong infection. This summarises that the patient had suffered from an infection .His breathlessness history indicated that the chance of respiratory tract infection. In Brain Computed Tomography reports it showed focal hypodense areas in left caudate nucleus and focal infarct in the same region.

Patient additionally developed abdominal discomfort, difficulty in passing stools and urine. He was treated with injection Ciprofloxacin 200 mg BD and Injection Dexamethasone 4mg/ml BD for 5 days without mechanical ventilator support. He received physiotherapy during whole the period of hospital stay. Patient started improving from the tenth day of admission and was discharged on 17<sup>th</sup> day of admission.

Patient repeated examination showed significant improvement also he was advised to continue the physiotherapy. In this case special emphasis should be given for symptomatic treatment and management of pain.

### DISCUSSION

Guillain – Barre syndrome (GBS) is a peripheral neuropathy with acute onset, which is characterised by rapid motor difficulty, absence of deep tendon reflexes, paraesthesia without sensory loss and increased albumin level in cerebro spinal fluid.<sup>[7]</sup>

This study reports the case of GBS without any known family history. The patient was fulfilled with the diagnostic criterion that is increased Cerebro spinal fluid protein level, progressive weakness of lower limbs, tingling sensation and numbness. Laboratory investigation revealed increased white blood cells count and ESR, he was treated with antibiotics for 5 days. He also received Injection dexamethasone. Previous studies showed that there was no beneficial effects on the use of corticosteroids.<sup>[8]</sup> The treatment with immunoglobulin and plasma exchange are effective in improving the clinical course of patients with Guillain – Barre Syndrome. But here the patients didn't received any immunoglobulin therapy.<sup>[9]</sup> During hospital stay he received symptomatic treatment and physiotherapy, his condition became better at the time of discharge.

### CONCLUSION

The prognosis of Guillain – Barre syndrome is depending on the early diagnosis of disease condition. It is important to recognise the variety and severity of motor and neurological symptoms associated with the syndrome. GBS is a life event with a potentially long lasting influence on the physical and psychosocial well-being. Continuing physiotherapy and regular monitoring of sensory, motor system with the disease condition makes a profound effect of patient's healthy life.

### ACKNOWLEDGEMENT

We heart fully thank our teaching staff members and friends for providing their immense support.

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