

## A CASE OF GUILLAIN-BARRE SYNDROME (MANS GATA VATA) CURED WITH MUSTADI YAPAN BASTI

Sadhana V Musale<sup>1</sup> S A Kulkarni<sup>2</sup>

<sup>1</sup>PG Scholar, <sup>2</sup>Professor & Head, Kayachikitsa Department  
RT Ayurved Mahavidhyalaya Akola, Maharashtra, India

### ABSTRACT

Guillain-Barre Syndrome is an autoimmune disorder comprising a group of clinic-pathological entities. Infectious conditions being the most common cause for disease, which trigger the immune responses in body attacking peripheral nervous system (PNS) and causes demyelination and degenerative changes in nerves, which finally results in the presenting signs and symptoms of paresis and paralysis. The present case is taken into account for discussion to emphasize the onset, progression and curative measure undertaken to treat the disease with purely Ayurvedic remedy “*mustadiyapanbasti*” and other allied *bastis* at Kayachikitsa dept. of Radhakishan Toshniwal Ayurvedic Mahavidhyalaya and Hospital, Akola.

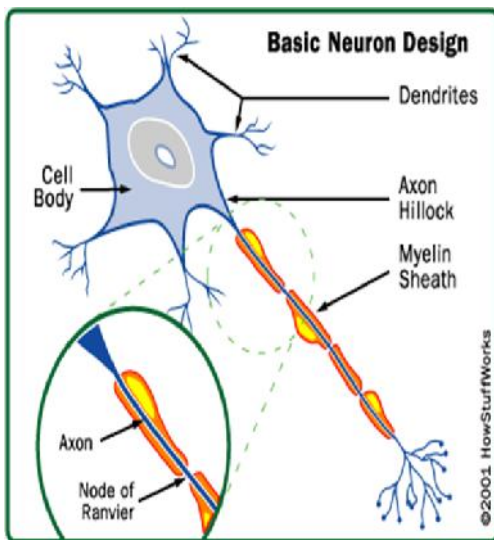
**Key words:** *Mans gata vata*, Guillain-barre syndrome, *Mustadiyapanbasti*,

### INTRODUCTION

Guillain-Barre Syndrome is an autoimmune disorder affecting the peripheral neurons with demyelination and degenerative changes in them. Acute immunomodulated poly-radiculo-neuropathy peri-vascular lymphocyte-macrophage infiltration in the peripheral nervous system leading to macrophage mediated segmental demyelination.[1] The Incidence of Guillain barre syndrome disease is about 1.5-2.0/100 000/ year.[2] with most cases preceded by an infection of upper respiratory

tract infection, diarrhea, and the Infectious agents that usually associated with Guillain-Barre syndrome are Cytomegalo viruses(CMV), Epstein bar virus(EBV), human immunodeficiency virus(HIV), Campylobacter jejuni, Mycoplasma pneumonia etc. [3] A typical neuron possesses a cell body (often called the soma), dendrites, and an axon. Dendrites are thin structures that arise from the cell body, a complex "dendritic tree". An axon is a special cellular extension that arises from the

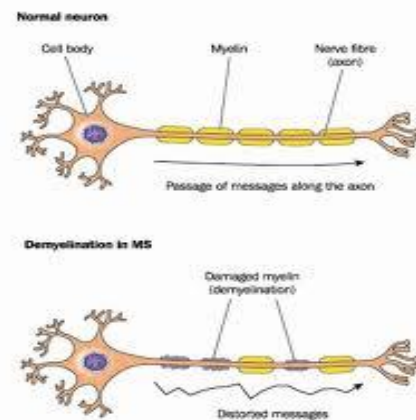
cell body at a site called the axon hillock. The cell body of a neuron frequently gives rise to multiple dendrites, but never to more than one axon, although the axon may branch hundreds of times before it terminates. At the majority of synapses, signals are sent from the axon of one neuron to a dendrite of another. Exceptions to these rules are the neurons that lack dendrites, neurons that have no axon, synapses that connect an axon to another axon or a dendrite to another dendrite, etc. [4]



**Fig1. Basic design of normal neuron**

Myelin is a fatty white substance that surrounds the axon of some nerve cells, forming an electrically insulating layer. It is essential for the proper functioning of the nervous system. It is an outgrowth of a type of glial cell. A demyelinating disease is any disease of the nervous system in which the myelin sheath of neuron is damaged. This impairs the conducting signals in the affected nerves causing impairment in sensation movement cognition, or

other functions depending on which nerves are involved.[5]



**Fig 2. Demyelination changes in nerves.**

Major advances have been made in understanding the mechanisms of some of the subtypes. The histological appearance of the AIDP subtype resembles experimental autoimmune neuritis, which is predominantly caused by T cells directed against peptides from the myelin proteins P0, P2, and PMP22. The role of T-cell-mediated immunity in AIDP remains unclear and there is evidence for the involvement of antibodies and complement. Strong evidence now exists that axonal subtypes of Guillain-Barré syndrome, acute motor axonal neuropathy (AMAN), and acute motor and sensory axonal neuropathy (AMSAN), are caused by antibodies to gangliosides on the axolemma that target macrophages to invade the axon at the node of Ranvier. About a quarter of patients with Guillain-Barré syndrome have had a recent *C. jejuni* infection,

and axonal forms of the disease are especially common in these people. The lipo-oligosaccharide from the *C. jejuni* bacterial wall contains ganglioside-like structures and its injection into rabbits induces a neuropathy that resembles acute motor axonal neuropathy. Antibodies to GM1, GM1b, GD1a, and GalNac-GD1a are in particular implicated in acute motor axonal neuropathy and, with the exception of GalNacGD1a, in acute motor and sensory axonal neuropathy. [6]

### **Pathogenesis as per Ayurvedic concept:**

The conditions are categorized under GBS due to proximity of their clinical presentation. When the morbid *vata* afflicts *mamsa* (muscles) and/or *meda* (fat tissue) various symptoms will be seen such as *gurvangam* (heaviness in bod), *atitoda* (pricking or tingling sensation in body), *dandamush-tihatamyatna* (feeling as if someone beating with closed fist or blunt object), *suruk* (pain) and *shramistham* (weakness).

*Vata* is very much important in controlling the body systems, but its derangement or disorder (*vata vyadhi*) affects the functions of each and every cell, tissue and organs in the body. In Guillain-barre syndrome (*mansgata vata*) the primary manifestation is weakness, numbness, tingling all of which is caused by vitiated *vata*. The

complications explained in Guillain-Barre Syndrome (*Mans Gata Vata*) can be correlated with the organs and tissues being affected by maximum vitiation by *vata*, and when *vata* is vitiated to peak it tends to affect all tissues in the body, *pittadosha*, *kaphadosha*, immunity and life span of the of the individual.

Immunity i.e. *bala* in Ayurveda is important for vitality principles, integrity to muscles, fortifies the motor sensory system and intellect to perform their natural functions. Due to this vitiated *vata*, *balakshay* occur. So the control of *vata* is the key factor in treatment of Guillain-Barre Syndrome (*Mans GataVata* ). *Vata shaman* (pacifying the *vata*) and *vatanulovaman* (propelling the morbid *vata* in downward direction). By the administration of effective medications and treatment leads to cure of Guillain-Barre Syndrome (*Mans GataVata* )

### **Present Case:**

A 32 year old male patient visited at YCM Hospital Pune on 16/2/2014, with complaints of tingling and numbness all over body followed by weakness of the both lower limbs followed by fall on ground. As the disease advances he had developed, stiffness in both the upper and lower limbs with power of “grade 0” and after 2 days he developed ptosis for which he had taken treatment with antibiotics and immunoglobulin. The symptoms get

improved to some extent but again started and get worsened even more. Later the pain starts in peripheral limbs and he was unable to move by himself in bed and needs help to turn on sides, because of pain he used to shout loudly as pain was unbearable, this indicates that sensory reflex was preserved, the weakness was more on right side of body. He was bed ridden after the onset of weakness, his bowel and bladder are although intact but using bedpan for toileting because of difficulty in movements and progressing weakness. He had discharged from YCM Hospital Pune. So he comes for treatment at Radhakishan Toshniwal Ayurvedic Mahavidhyalaya and Hospital, Akola.

#### **On Examination:**

When the patient comes to this hospital for treatment, he was thoroughly examined and complete history was taken. He was admitted with OPD registration No 3178 and IPD registration no. 314. He had no history of fever at the onset of weakness, no history of recent immunization, no history of animal bite such as dog, no history of seizures episodes, no history of similar complaints in the past, no history of similar complaints in the family. Patient was conscious cooperative and well oriented to time place and person. No signs of pallor, Icterus, Clubbing, Lymphadenopathy. Blood pressure was 110/70 mm Hg and Pulse rate was 82/min and regular, respiratory rate was 18/min.

Higher intellectual functions were intact. Cranial nerves functions were normal except ocular nerve; motor system shows hypotonia of muscles of upper and lower limbs. Power was grade 0/5 in upper limbs and lower limbs. Diminished reflexes were seen in all deep tendon reflexes with absent ankle reflex and bilateral foot drop. The Sensory symptoms were well preserved and intact. The other systems cardiovascular, respiratory system, per abdominal examinations were within normal limits normal. From all these signs symptoms and examinations of acute onset, pure Motor paralysis, Intact sensory, No cranial nerve involvement, no bladder involvement, no fever at onset of weakness, the condition was diagnosed as Rapid progressive ascending paralysis due to “guillain barre syndrome”

#### **Treatment:**

In GBS *vata dosha* is elevated so *basti* is considered to be the best treatment to normalize the *vata dosha*. The Best *basti* for this disease is *mustadiyapanbasti* (nourishing enemas), *mustadiyapanbasti hasrasayana* effect and can be administered for longer duration without any adverse effect. *Madhuraanuvasanbasti* (enemas with oils and ghee processed with drug having sweet taste). The ingredient drugs of *mustadiyapanbasti* have predominant *vatahara* and *rasayana* properties. This *basti* is a type of *niruhabasti* which is a

*shodhanbasti* which will give strength to the patient.

Other strategies to be adapted in treatment were, *Brimhana* means bulk promoter medicines which promotes the bulk of muscle and strengthens the muscle and provide nutrition and nourishment to the muscles. Among them *ashvagandha* is the best drug in dealing with neuromuscular disorders, which has *vatahara, brumhana, balya* and *dhatuwardhak* property and also have CNS depressant action which might help in reducing muscular spasm and abnormal movement. So the treatment mentioned below was given to this patient.

He was given purely Ayurvedic treatment at Kayachikitsa dept. of this hospital. The continuous and under observation treatment with “*Mustadiyapanbasti*” with 3 courses were given with one course for 8 days, and other additional *bastis* such as, *panchtilakghrit* 1 course for 8 days, *madhutailikbasti* 1 course, *matrabastiashwagandhaghrit* 2 courses and or all *ypurnanava, aamalaki, guduchikwath, ashwagandhakshirpak* were given.

#### **Progression of disease after treatment:**

After the treatment continuous of 7-8 months, Patient showed the improvement in his condition and developed power up to grade 4/5 power in both upper limbs and lower limbs. He is able to walk on his own without support

and he can eat by himself. He was also able to do work with help of assistance.

#### **DISCUSSION**

The disease guillain barre syndrome affects mostly Adults than children, and most of the times lead to rapid recovery from symptoms. Anti GM1 antibodies may be reduced to 50% of normal, with severe demyelinating changes in nerves.[7] They first attack on Schwann cell surface of nerves causing widespread myelin damage and variable axonal damage. Respiratory or GI tract infection also occur 1-3 weeks prior to the onset of weakness and then sudden or progressive weakness over 2-3 days which, then progress to rapidly evolving is flexic Ascending type of motor paralysis with or without sensory disturbance. Involvement of Legs is more than arms accompanied by dysesthesias of extremities. The reflexes attenuate, disappear in few days of onset. [8] Facial diparesis seen in 50% affected individuals. Lower cranial nerves affected leading to bulbar weakness causing difficulty in handling secretions, maintaining airway. Other features are ophthalmoplegia, pupillary paralysis, and optic atrophy. In terms of sensory system largemyelinated nerve fibers are severely affected. Proprioception is more affected than pain temperature sensation.[9] Bladder is affected in only in severe cases and transiently, if bladder dysfunction is a prominent feature and comes early in the course, we



should think about diagnosis other than GBS. Most people (85%) recover from even the most severe cases of GBS with minimal residual symptoms. Quick diagnosis & treatment may lessen the severity of GBS and reduce recovery time. The signs and symptoms of GBS may last days, weeks or months before muscle sensation begins to return. Regaining pre-illness strength and functioning is slow, sometimes requiring months or years.[8] However, most people with GBS return to normal within months

#### CONCLUSION:

Guillain-Barre Syndrome is an autoimmune disorder consists of a group of clinic-pathological entities and Infectious conditions are the most common cause for disease. In GBS *vata dosha* is elevated so *basti* is considered to be the best treatment to normalize the *vata dosha*. In this the best *basti* for this disease is *mustadiyapanbasti* (nourishing enemas) and other additional *bastis* such as, *panchtilakghrit*, *madhutaalik-basti*, *matrabasti*, *ashwagandhaghrit*, *purnanava*, *aamalaki*, *guduchikwath*, *ashwagandhakshirpak* were given. This patient showed the improvement in his condition and developed power up to grade 4/5 power in both upper limbs and lower limbs. He is able to walk on his own without support and he can eat by himself. He was also able to do work with help of assistance.

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### **CORRESPONDING AUTHOR**

**Dr. Sadhana V. Musale**

PG Scholar Kayachikitsa dept. RT Ayurved  
Mahavidhyalaya, Akola, Maharashtra, India

**Email:** Sadhanamusale11@gmail.com

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