



MANAGEMENT OF GUILLANE BARRE SYNDROME THROUGH AYURVEDA PRINCIPLES - CASE REPORT

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ABSTRACT:

Guillain–Barré syndrome (GBS) is an immune mediated acute inflammatory polyradiculoneuropathy that presents with rapidly progressive flaccid paralysis, areflexia and tingling sensation. Prolonged disease course can lead to autonomic dysfunction and even be life threatening with respiratory difficulties. Here we present a case report of 29 years old male patient who reported to OPD of GAMC Mysuru, with complaints of loss of strength in bilateral lower limbs with stiffness, and numbness and also complaints of reduced strength in bilateral upper limbs and diagnosed as case of GB syndrome. As per Ayurvedic concept, based upon clinical presentation it was considered as *Vatavyadhi* and treated by the principles of *vatavyadhi chikitsa* which included *Abhyanga*, *Swedana* and *Basti* along with Ayurvedic oral medications. Following a two course of *Panchakarma* therapy and oral medications there was significant improvement observed in gait and muscle power.

Keywords: Gb Syndrome, *Vatavyadhi*, *Shashtika shali pinda sweda*, *Rajayapana basti*

INTRODUCTION:

Guillain–Barré syndrome (GBS) also called acute inflammatory demyelinating polyradiculoneuropathy (AIDP), is an acute, frequently severe, and fulminant polyradiculoneuropathy that is autoimmune in nature¹. It is characterised by a syndrome of rapidly progressive flaccid paralysis, areflexia and albumin cytological dissociation in the CSF. It is named after the French army neurologists, Georges Guillain and Jean Alexandre Barre, who described this entity in 1916.

Epidemiology suggests annual incidence of 1 to 2 per 100,000, and commonly found in younger ages. There is no gender preponderance². A preceding event, most frequently an upper respiratory or gastrointestinal infection, surgery, or immunisation 1 to 4 weeks is seen before the onset of neurological symptoms. GBS manifests as a rapidly evolving areflexic motor paralysis with or without sensory disturbance. The usual pattern is an ascending paralysis that may be first noticed as rubbery legs. Weakness typically evolves over hours to a few days and is frequently accompanied by tingling dysesthesias in the extremities. Involvement of limbs is usually symmetrical and respiratory involvement can occur in a period of three to four weeks³. Cranial nerves may be affected, most commonly the facial (50%), bulbar (30%), and ocular(10%). Intubation, plasmapheresis, intravenous immunoglobulin and glucocorticoids are lines of treatment adopted.⁴

As per Ayurvedic literature, there is no direct description about the disease. Based on the nidana of acute viral infection, initial stage can be understood in terms of jwara samprapti and in later stage, manifestation of symptoms such as balakshaya, stambha, sankocha, supti can be treated as vatavyadhi. It can be understood as vatavyadhi which has affected sarvanaga and is *apatarpana* in nature. Hence, the choice of treatment should be santarpana, vatahara, balya and bruhmana. Here a case report of GB Syndrome managed through Ayurveda and its outcome is discussed.

Case report:

A 29 year old male patient approached OPD of GAMC, Mysuru Dept. of Kayachikitsa with complaints of loss of strength in bilateral lower limbs with stiffness, and numbness and also complaints of reduced strength in bilateral upper limbs. Detailed history of present illness revealed that patient was apparently healthy before 15 days. He suddenly developed pain in calf region for two days followed by diarrhoea, generalized weakness and fever. Following this after 2 days, he suddenly developed loss of strength in bilateral lower limb initially and later the weakness progressed to bilateral upper limbs and It was associated with generalized weakness, numbness and reduced appetite. On consulting a nearby clinic it was treated as viral fever and he was administered with antipyretics and antibiotics, As there was no improvement, patient approached to GAMC, Mysuru for further treatment. No history of trauma was reported nor had he ever complained of the current symptoms.

Past history: No H/O DM/HTN/Trauma or any other major medical illness.

Family history: No history of same illness in any of the family members.

Findings on examination:**General examination:**

Built	:	Lean
Nourishment	:	Moderate
Pulse	:	86 b / min
BP	:	110/70 mm of Hg
Temperature	:	98.F
Respiratory Rate	:	20cycles / minute
Weight :	:	55 kg
Tongue	:	Uncoated
Pallor	:	Absent
Icterus	:	Absent
Cyanosis	:	Absent
Clubbing	:	Absent
Koilonychia	:	Absent
Edema	:	Absent
Lymphadenopathy:	:	Absent

Systemic examination:

CNS: Conscious, oriented to self place and time, pupillary reaction normal

Higher mental functions – intact, Cranial nerves – No abnormalities detected

Muscle tone – Hypotonia (Bilateral)

Muscle bulk – thenar and hypothenar eminence- reduced

Muscle power – 3/5 in bilateral upper limbs and 2/5 in bilateral lower limbs

Reflexes – superficial reflex – normal, Deep tendon reflexes – Knee jerk and ankle jerk reduced

Sensory system – Intact

CVS: S1, S2 heard, no murmurs

RS: normal vesicular breathing, no added sounds

P/A: Soft, no tenderness; no organomegaly

Ashta Vidha Pariksha

Nadi: 86bpm

Mala: 1- 2 times/day, Prakrita

Mutra: 4-5 times/day, Prakrita

Jihva: Alipta

Netra: Prakrita

Sparsha: Anushna sparsha

Druk: Prakrita

Akriti: Avara

Dashavidha Pareeksha:

Prakruti: Vata kapha

Vikruti: Kapha, vata

Sara: Rasa, Mamsa

Samhana: Madhyama

Satmya: Avara

Satva: Pravara

Pramana: Madhyama

Aharashakti: Avara

Vyayama shakti: Avara

Vaya: Madhyama



DIAGNOSIS: GB Syndrome**INTERVENTION:**

Both panchakarma procedures and shamanaoushadhi were administered for a period of 90 days. The treatment planned is listed down in table below.

Table no.1 Showing treatment given in GAMC&H Mysuru

PANCHAKARMA PROCEDURES	
29/11/2019 – 18/11/2019	Sarvanga abhyanga with Sahacharadi Mezhupakam taila followed by Shashtika shali pinda sweda
19/11/2019- 21/12/2019	Sarvanga abhyanga with Baladhatryadi taila followed by nadi sweda
22/12/2019 – 16/1/2020	Sarvanga abhayanga with Ksheerabala taila followed by Shashtika shali pinda sweda
29/11/19- 6/12/2019	Matra basti with Ksheerabala 7 Avartini taila 100ml
24/12/2019 -30/12/2019	Matrabasti with Baladhatryadi taila 100ml
17/01/2020- 27/01/2020	Mustadi Raja Yapana Basti Saindhava – 6gm Honey - 100ml Mahanarayana taila – 100ml Mustadi yapana kalka - 1 packet Mustadi yapana basti } kwatha } – 300ml
17/12/2019 – 04/03/2020	Physiotherapy
SHAMANOUSHADHI	
29/11/2019 – 04/03/2020	Cap Ashwal Plus 1-1-1 A/F Cap khseeraguduchi 1-1-1 A/F Tab Brihatvatachintamani rasa 0-0-1 with honey
29/11/2019- 03/01/2020	Ashtavarga Kashaya 20ml +20ml water A/F
29/11/2019- 15/12/2019 20/02/2020- 04/03/2020	Tab agnitundi vati 1-0-1B/F
ADVICE ON DISCHARGE	
04/03/2020-05/04/2020	Ashwagandha churna 1/2tsf 1-1-1 A/f Tab Mahayogaraja guggulu 1-1-1 A/f Cap ksheerabala 101 1-0-1 A/f

RESULTS:

There were beneficial effects for patient in terms of muscle strength in all extremities as the treatment progressed. Symptoms like stiffness of calf region reduced , reduced strength in bilateral lower limbs improved. Patient was able to stand, walk without support, climb stairs with support. However, foot drop of bilateral feet and slight numbness in bilateral feet persists even after management. The improvement in symptoms is shown in the below table.

Table no.2 Improvement in symptoms before and after treatment

Symptoms	BT	After abhyanga, SSPS and matran basti	After abhyanga and nadi sweda	After mustadi raja yavana basti	Parihara kala
Reduced strength in both upper limbs	Present	Mild improvement	Mild improvement	Moderate improvement	Moderate improvement
Loss of strength in both lower limbs	Present	Mild improvement	Moderate improvement	Moderate improvement	Moderate Improvement
Reduced movement in both lower limbs	Present	Partial Extension and flexion of lower limbs	Moderate Extension and flexion of lower limbs	Raising leg partially	Raising leg completely and holding it for 15- 30 secs
Standing	Unable to stand without support	Stand with support for 5-10 mins	Stands with support completely	Stands without support for few minutes	Stands without support
Walking	Unable to walk without support	Walks few steps with support	Able to walk long distance with support	Walks without support for few steps	Walks without support completely
Stiffness	Present	Mild improvement in calf region	Reduced stiffness in calf region	Reduced stiffness in calf region	Reduced stiffness in calf region

Effect of treatment on CNS**Table no 03 : Motor system: Pre and Post Treatment**

Parameters	BT	AT
Muscle tone	Hypotonia	Improved in both upper and lower limbs
MUSCLE BULK		
Mid-arm circumference	20cm	20.5cm
Mid-thigh	43cm	43.5cm
Calf	30.5cm	30.5cm
Muscle wasting	Hypothenar and thenar muscles	Hypothenar and thenar muscles

Table no 04. : Muscle power- Pre and Post Treatment

	BT	AT
Right upper limb	3/5	5/5
Left upper limb	3/5	5/5
Right lower limb	2/5	4/5
Left lower limb	2/5	4/5

Table 05: Reflexes: Pre and Post Treatment

Superficial Reflexes	Right (BT)	Right (AT)	Left (BT)	Left (AT)
Corneal reflex	+	+	+	+
Gabellar blink reflex	+	+	+	+
Abdominal reflex	+	+	+	+
Plantar reflex	Normal	Normal	Normal	Normal
Deep reflexes	Right (BT)	Right (AT)	Left (BT)	Left (AT)
Triceps jerk	+	+	+	+
Biceps reflex	+	+	+	+
Brachioradialis reflex	+	+	+	+
Knee jerk	-	+	-	+
Ankle jerk	-	-	-	-

DISCUSSION:

The pathophysiology of GBS occurs due to demyelination and conduction block⁵. Hence recovery occurs when there is remyelination. GBS in this patient was debilitating with total loss of power in all extremities but with no life threatening conditions like respiratory disturbance or autonomic dysfunctions like arrhythmias. Patient could not afford the standard therapy of plasma exchange due to cost factor and he opted for Ayurvedic management.

By understanding the disease course and progress and taking into consideration the nidana and lakshana, we can consider it in initial stage of infection as vishama jwara and once the motor system symptoms manifests as vatavyadhi. In this case, as the patient presented with motor symptoms and previous symptoms of infection were reduced, management was done on the lines of Sarvangavata vyadhi. GBS is apatarapana vyadhi, principles of management included snigdha, bruhmana, balya and vatahara modalities.

Snehana and swedana the initial treatment for vatavyadhi was adopted in the form of sarvanga abhanga and Shashtika shali pinda sweda. Sarvanga abhyanga is vatahara and gives pushti to shareera. Sahacharadi mezhupakam taila⁶ has dashamoola, kushta, devadaru which are mainly vatahara. The main ingredient Sahachara is indicated in disorders where there is karma kshaya of paada. It has a potency to rejuvenate the nerves and is useful in neurological disorders. Baladhatryadi taila⁷ and ksheerabala taila⁸ were also used and they are having balya, bruhmana and vatahara action. Abhyanga helps in relieving the stiffness of muscles, improves muscle tone and provides strength to muscles. Sashtika shali pinda sweda having ksheera, shashtika shali, balamoola kwatha is snigdha, balavardhana and bruhmana. Shashtika is Snigdha, Balavardhana and Deha dardhyakrita. Bala and Godugdha are Snigdha, Balya, Rasayana and Vatahara. The warmth may enhance the blood circulation and decrease muscular stiffness.

In vatavyadhi, the best treatment is basti as stated “*Basti vataharanam sreshtha*”. Matrabasti is the preferred basti in current days as it requires minimal effort, has less complications, retains for long time and has no particular pathyapathya advocated. Ksheerabala 7 avartini taila has balya, bruhamana, rasayana and jeevaniya properties and Baladhatryadi taila is vata pittahara, balya and indicated in rakta, mamasa and balakshaya.

After a course of matrabasti for 16 days, parihara kala was observed and later Mustadi raja yapana basti in karma basti pattern was administered. Yapana basti⁹ enhance shukra, mamsa and bala and has both shodhana and brahmana properties. Rajayapana basti is having sadyobala janana and rasayana action. The drugs are having tikta rasa, guruguna, jeevaniya, balya properties and help in mamsa, asthi and majja poshana.

Physiotherapy which was advised along with other modalities increases body strength, helps in maintaining body balance, strengthens the muscles of hamstrings, quadriceps and increases flexibility of muscles.

Agnitundi vati has deepana, pachana action and Brihatvatachintamani rasa is vata pitta hara, balya, kshayahara, ojovardhaka and yogavahi. Ashtavarga Kashaya has bala, sahachara, eranda, shunti, rasna which are vatahara. Ksheeraguduchi capsule is balya and bruhamana as it contains guduchi, ksheera and taila. Capsule ashwal plus contains ashwagandha, vidarikanda, shatvari, kapikacchu, vriddhadharu, guduchi which are balya, rasayana in action.

Follow up and outcome:

The patient was reviewed once again after 6 months. During this period he was managed by Shamanoushadhi, there was significant improvement in motor functions. Patient was able to walk without support easily for long distance and was able to climb stairs without support and bilateral upper limbs had normal function. Patient was able to perform his daily routine activities without difficulty. However bilateral foot drop with loss of fine movements of foot persisted.

CONCLUSION:

GB syndrome is an acute demyelinating disorder which has a recovery phase within four weeks but with severe residual symptoms. Residual symptoms can be better managed through Ayurveda. Hence an attempt was made here to manage a case of GB syndrome and the outcome showed significant role of Ayurveda in severe debilitating disorder like GBS. Ayurveda management can decrease the disability and improve quality of life.

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