

A CASE REPORT OF PANCHAKARMA MANAGEMENT IN THE GUILLAIN BARRE SYNDROME

Shubhangi Jadhav^{1*} and Ashwini Patil²

¹PG Student, Department of Kaumarbhritya, Govt. Ayurved College, Vazirabad, Nanded.

²Assistant Professor, Department of Kaumarnhritya, Govt. Ayurved College, Vazirabad, Nanded.

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*Corresponding Author

Shubhangi Jadhav

PG Student, Department of
Kaumarbhritya, Govt.
Ayurved College, Vazirabad,
Nanded.

ABSTRACT

Guillain Barre Syndrome is an autoimmune disorder encompassing a heterogeneous group of pathological and clinical entities. Antecedent infections are thought to trigger an immune response, which subsequently cross reacts with nerves leading to demyelination or axonal degeneration. Both intravenous immunoglobulin treatment and plasma exchange. As per *Ayurveda Panchkarma* therapy is described in variety of diseases. As per *Ayurveda* this condition is correlated with *Sarvangavat vyadhi – vata* disorder which is preceded by *Jwara*. Myelin sheath is fatty in nature which covers the nerve cells. That forms insulating layer which is necessary for proper functioning of

nervous system. It is compared to *Medogat Vata* i.e. vitiation of *vata*. This destroys the myelin [Fat] and affects the signal transmission. It can be considered as *Mamsagata Vata*. *Ayurveda* provides *Panchkarma* treatment to ease the symptoms associated with GBS which reduces the illness. *Ayurveda* mainly focuses on balance the *Tridoshas* in the body.

INTRODUCTION

GBS is one of the most common severe acute paralytic neuropathy. Is a heterogeneous rapidly progressive disease. GBS has a monoplastic disease course occurs post infection and is usually non relapsing. Around 20- 30 percent of patients may be associated with life threatening respiratory failures.

Prevalence is 2.7 per 1 lack per year,^[1] it is more in men than women and has seasonal fluctuations.

GBS is usually preceded by an infection resulting in immune stimulations. This induces molecular mimicry between microbial and nerve antigens leading to an aberrant autoimmune response targeting peripheral nerves and their spinal roots.^[2] 1-2 weeks post immune stimulations, clinical manifestations begins with a rapidly evolving flexic motor paralysis with or without sensory disturbance. Typically weakness is ascending, paralysis evolves over hour to a few days. Affliction of lower limbs is more common than upper. Cranial nerves can be involving other manifestations include tingling, dyesthesias, autonomic disturbance and respiratory failure, peak presentations are in a period of 2-4 weeks.^[3] Main phenotype and acute inflammatory demyelinating polyneuropathy and acute motor axonal neuropathy and acute motor axonal neuropathy based on pathology involved in myelin sheath or nerve axon respectively.

Though Intravenous Immunoglobulins [IVIG]^[4] and plasma exchange^[5] are beneficial but they have showed development of severe weakness, incomplete recovery, pain, fatigue and a long disease course.^[1] Other hindrance of these therapies specially in developing and under developed countries are the high cost involvement. Mortality is due to ventilatory insufficiency, pulmonary complications, autonomic dysfunctions and deterioration in general health. Recovery period may last from months to year with delay in immune response and endogenous repair of peripheral nerves. Recovery results in severe and permanent disability with substantial affect on daily activity and quality of life.^[6] Poor prognostic factors are high age and high disability at nadir. Studies have recommended for development of more effective treatments.

Ayurveda mentions a clinical condition termed *Sarvanga Vatvyadhi* which symptomatologically relates to GBS. *Sarvangavata* present itself with motor deficits, speech derangements, severe pricking and aching pains, may affect from single limb to whole body. Treatment of *Sarvangavata* depends on pathological state of *vatdosh*, *vatadushti* could be due to primarily vitiation in *vata* alone or due to other *dosha* and *dhatu*s.^[7] State of *vata* can be *Saama* or *Nirama*. Pathological staging could be due to *gati* or *avarana*. Considering these various factors managements is planned either through or *apatarpana* principles.

Patient information

A 12 year old male patient presented with complaints of having difficulty in walking, tingling and numbness over bilateral lower limbs and slightly calfmuscle hypertrophy since 2years.

Clinical Findings and Diagnostic assessment

Clinical examination at GACH Nanded showed that deficit in sensory system like tingling, numbness over lower limbs while nerve conduction report shows there is e/o widespread, multifocal motor>>sensory, demyelinating lower limb+upper limb peripheral neuropathy Consider as GBS.

Clinical findings

1. Assessments were done at various time points like 1st, 7th, 14th, 28th, 56th, 112th, 140th day.^[8]
2. Sensory assessment like tingling, numbness, were assessed through visualanalogue scale, power grade^[9] [0- 5], reflexes[0,5+]^[10]

Timeline

History revealed episodes of fever and URI 1year back which lasted for 8days and was treated by local physician on 8th day patient gradually noticed progressive weakness in bilateral lower legs, backache for this he was shifted to private children hospital. Examination findings in that hospital and in nerve conduction study revealed that it was GBS. Vital examination findings HR, RR, BP, P, etc were normal and blood reports like CBC, CRP, LFT, RFT are not so higher in limit. Patient was treated with intravenous IvIg for 2days and antibiotics for 5days. However after 6-7days patient was discharged due to lack of affordability. After 1year patient came to our hospital.

Therapeutic intervention

Patient was diagnosed with *Sarvangvata*, pathological staging was *Kapha pitta dosha* abnormality along with *vata*.

Management was with *sarvangaabhyanga*, *nadi sweda*, *katibasti*, *shaman aushadhi*[oral medication].

All *ayurveda panchkarma* procedures were done as per the principles and practices of *ayurveda*.^[11]

DISCUSSION

Ayurveda showed to be effective management of GBS. Extended follow up observations showed that improvements were well sustained. GBS is an autoimmune disorder presenting with rubbery ascending weakness.

The disease has acute onset sometimes ascends to respiratory muscles and leading to collapse if no intensive care taken properly. The treatment principle is infusion of immunoglobulin and plasma pheresis which is effective transiently and costly may not be affordable by person of low socioeconomic status.^[12] As *Ayurveda* evidence based and *panchkarma* treatment if advocated by wise physician give the better result and cost effective and can be made available at remote place of country like India where the intensive care and emergency treatments are not widely available. In GBS there is ascending paralysis, weakness, in the feet, hand and migrating towards the trunk this was considered as *mamsa* and *majjadhatushti* along with *Vata*, *majjadhakala* and *pittadhakala*. Massage with *Bala taila* and *Nadi swedana* and *Katibasti* with *Bala taila* was performed.

Bala taila possess *santarpana* qualities [antioxidant nourishing] with *Prithvi* and *Apmahabhutas* [subtle elements] of earth and water which are nourishing in nature and is indicated for *Balya*, *Bhrimhna* [nourishing], strengthening *dhatus* [building blocks] and *vata* pacification, *Abhyanga* mitigates *vata dosha* it is *pushtikara* [promotes strength] and it is *jarahar* [prevent aging].

Abhyanga using *bala taila* and *nadi sweda* performed in *anuloma gati* because *dosha* involved is *vata* and disease is caused due reduction in its *calguna* causing inability to transmit nerve impulses. Considering the *dosa* and *dhatu* involvement. *Vataniyantrana* and *balya* treatments were selected and movements were performed in *Anulomagati*.

Nadisweda facilitates opening up of blocks in nerves, conduction and facilitates remyelination of nerves there by helps to transmit nerve impulses with minimum amount of stimulus for muscular contraction.

We know that GBS is autoimmune in nature which means that there is hypersensitivity of immune system. There are two major phenomenon in pathogenesis of autoimmune disorders.

1. Mistaken judgement about body.
2. Attack of immune system on the body tissues to destroy them.^[13]

Mistaken judgement about body tissue occurs by the virtue of *shighraguna* while explaining *vata prakriti* Charaka states that by virtue of of this *shighraguna* we can found *Alpasmriti* [lesser remembrance] and *shighragrahita* [early identification] in persons.

Alpasmriti when occurs at the level of WBC their recognition of body tissues is disturbed. Hence treatment which reduces this *shighraguna vata* is also important while treating autoimmune disorders. Attack of immune system while *pitta prakriti lakshana*, Charaka has mentioned that *tikshna guna* of *pitta* is responsible for *tikshnagni* and *tikshnaparakrma* [increase appetite and increase tendency to fight] when we correlate this effect of *tikshnaguna* with respect to immune system, increase in *tikshnaguna* causes destruction of external pathogens, *tikshnaguna* of *pitta* and along with *shighraguna* of *vata* at immune level bring about misjudgement and hypersensitivity and causes destruction of body tissues and we can postulate that this is how autoimmune disorder can occurs.^[14]

Hence consideration of *tikshnaguna* of *pitta* and its treatment is very important while treating various autoimmune disorders.^[15]

CONCLUSION

This study not only gives us confidence and better understanding for treating such cases in *ayurveda* hospital but also leads in direction of *ayurvedic* therapy. As immunoglobulin treatment is costly alternative. Cost effectiveness of *ayurvedic* treatment seems promising. It also confirms that *Ayurvedic kriya* and *Ayurvedic* diagnosis is very important in terms of *Dosha*, *Sthana* [status] and *udgama* [etiology] *pittadharakala*, *majjadharakala* relation and clinical understanding of basic concepts of *guna* in treatment of *Anukavyadhi* form the important bridge between modern diagnostic methods and *ayurvedic* treatment of GBS.

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