

WORLD JOURNAL OF PHARMACEUTICAL RESEARCH

SJIF Impact Factor 8.453

Volume 13, Issue 16, 460-466.

Review Article

ISSN 2277-7105

AN INTEGRTAED APPROACH OF SARVANG VATA WITH SPECIAL REFERENCE TO GB SYNDROME

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Article Received on 30 June 2024,

Revised on 21 July 2024, Accepted on 10 August 2024

DOI: 10.20959/wjpr202416-33548



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ABSTRACT

Vata plays major role in manifestation of number of diseases mentioned in Ayurveda. Vatavyadhis have been mentioned particularly by every Acharya along with its classification, aetiology, pathogenesis and management. Sarvangavata is a type of vatavyadhi that causes degenerative changes in Dhatus, Sira, Snayu and Kandara. This study attempts to achieve integrated approach of sarvangavata, its diagnosis and management with special reference to GB syndrome; as the same depicts similarities in aetiopathogenesis and clinical features. GB syndrome being one of the misdiagnosed and mistreated diseases, on integrated Ayurvedic vyadhinidana and hence, can contribute to implement a better line of treatment so as to provide patients a fair prognosis and provide healthcare professional a substantiation.

KEYWORDS: GB Syndrome, Sarvang vat, dosh chay prakop.

INTRODUCTION

Nervous system is divided into CNS and PNS.^[1] CNS consist of Brain and spinal cord and PNS consist of nerves and ganglion. The PNS system is not protected by vertebral column or skull or blood brain barrier which leaves it exposed to toxins, infection, heavy metal, autoimmune and inflammatory conditions. GBS (Guillain – Barre Syndrome) is acute demyelinating polyneuropathy, where the body's immune system attacks PNS.

It is potentially life-threatening disease, characterized by rapidly progressive symmetrical weakness of the extremities, about 25% of patient develops respiratory insufficiency. GBS is

www.wjpr.net Vol 13, Issue 16, 2024. ISO 9001: 2015 Certified Journal 460

difficult to diagnose as it presents with vague and unusual distribution of weakness and delay in the diagnosis may land the patient in quadriplegia and cardiac arrythmias and declining respiratory function. Thus, there is urge to study and understand the disease with the ayurvedic perspective for early diagnosis, so as to clamp the severity and life-threatening form.

According to ayurveda, Vayu is responsible for the movement or motor function of body and when the motor functioning of all the limbs is compromised it is termed as "Sarvang-vaat". In most of diseases vata plays major role accessing the sensory motor function of body.

AIM: To study integrated approach of Guillain-Barre Syndrome and Sarvang vata.

OBJECTIVE

- 1. To study integrated approach between GB syndrome and Savrang vata
- 2. To study the GB syndrome in detail
- 3. To study Sarvang vata in detail

REVIEW OF LITERATURE

1) Review of GBS

Guillain–Barré syndrome (GBS) is a heterogeneous disease characterized by rapidly progressive, symmetrical limb weakness with hyporeflexia or areflexia; sensory disturbances and cranial nerve deficits occur in some patients. GBS is a rare disease with an incidence of 0.81–1.89 per 100,000 person–years, and is more common in men than in women (ratio 3:2) Guilliain-Barre Syndrome is idiopathic disease.

Gbs is post infectious disease; 2/3rd of patients gives history of previous onset of GIT or Respiratory system infections before occurrence of disease while about half of patients have specific infection by Campylobacter jejuni. Other pathogens causing GBS are cytomegalovirus, mycoplasma, pneumonia, influenza A virus, etc.^[2]

Gb syndrome is autoimmune disorder in which body's own cells attack on immune system. Demyelinating disease is any condition that causes damage to the protective covering (myelin sheath) of nerve fibers. The pathophysiology occurs due to "Molecular Mimicry". Antibody produced against the infectious agent matches the protein on the nerve cell.

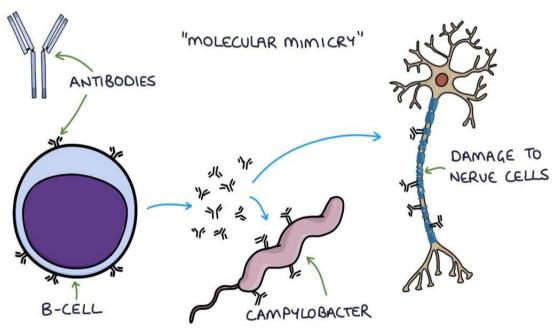
Sign and Symptoms

- The first symptom of GBS includes weakness or tingling sensations usually starting from legs and spread to arm and face. [3]
- For some people these symptoms can lead to paralysis of leg, arm and muscle of face.
- In $1/3^{rd}$ of people the chest muscle is affected making it difficult to breath.
- The ability to speak and swallow may get affected in some severe cases.
- The most commonly identified trigger if gastrointestinal infections with Campylobacter jejuni.

Pathophysiology of GBS

Molecular Mimicry

Where the lipo oligo saccharide present in the outer membrane of bacteria like C. jejuni mimics or is similar to the gangliosides which are component of peripheral nerve. [4] Antibody may target protein on myeline sheath of motor neuron or nerve axon and damaged the nerve cell leading to neuropathy. Therefore, on triggered immune response due to first infection, target the motor nerve and damage nerve cell leading to nerve dysfunction and symptoms of GBS.



Pic 1: Pathophysiology of GBS.^[5]

Classification of GBS^[6]

- 1. Acute Inflammatory Demyelinating Polyneuropathy (AIDP)
- 2. Miller Fisher Syndrome (MFS)

- 3. Acute Motor Axonal Neuropathy (AMAN)
- 4. Acute Motor Sensory Axonal Neuropathy (AMSAN)
- 5. Acute Panautonomic Neuropathy
- 6. Bickerstaff's brainstem encephalitis

2) Review on Sarvang –Vata

Vata vyadhi covers a wide range of neurological, neuro muscular, musculo-skeletal and degenerative disorders.

Vata get aggravated in two different ways.^[7]

- 1. Dhatukshay janya by diminution or destruction of tissue element.
- 2. Margavarodh janya by occlusion of its channel of circulation.

And thus, depending upon the kind of aggravation and site of vitiation, symptoms are produced.

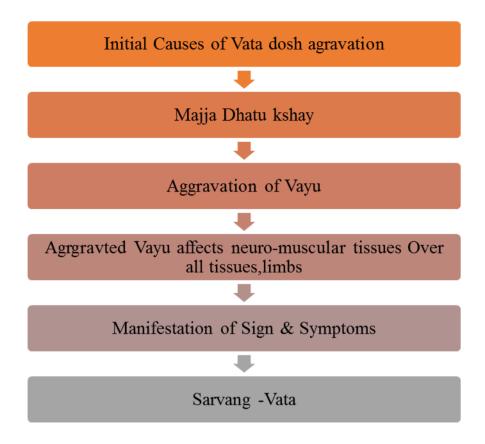
When the aggravated Vayu paralyses one side of the body, either right or left, causing immobility of that side, then it is called pakshavadha.^[8] When either of the legs or hands is affected, then it is called Ekang rog or Ekang vata. According to Madhav nidana, when vata vitiates all over body produces symptoms like tingling sensations, tenderness and break bone pain.^[9]

But, when the aggravated or morbid Vayu causes constriction of the vessels and ligament, resulting in contraction of all the limbs and morbidity pervades the entire body, then it is called Sarvang rog or Sarvang vata.

Samprapti Chakra

The Majja dhatu, on depletion due to nija (Genetic or autoimmune) or agantuja hetu (environmental factor or bacteria or virus infection), leads to aggravation of Vayu.

This aggravated Vayu settles or gets "sthansanshraya" in the "kha-vaigunyata prapta" all the limbs [10], constricts the vessels and ligaments of the limbs causing immobility; thereby affecting the motor functions and manifest the symptoms of Sarvang vata.



DISCUSSION

GBS is potentially disabling and sometimes life-threatening disease. Beside the symptomatic and immediate management required in GBS, various institutes are conducting research for the cure and subside the degeneration of nerves. Although, diagnosis of GBS still remains the complicated and foremost obstacle in treatment of the disease. The commonly used diagnostic methods for GBS are. [11]

1. Cerebrospinal fluid analysis

Albuminocytologic dissociation,

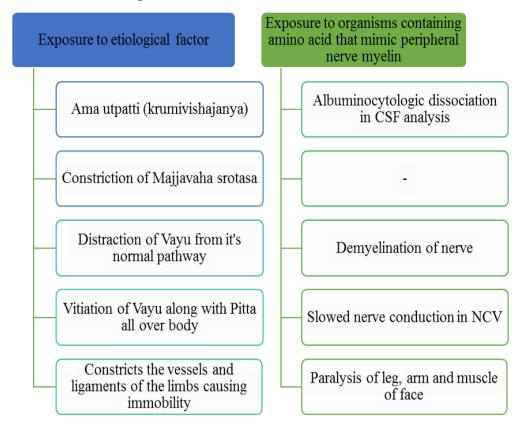
Normal WBC count

2. Nerve conduction velocity study

Slowed nerve conduction velocities (less than 75% of normal),

Prolonged or absent 'F' and 'H' wave

These findings, most of the symptoms and vital part of pathogenesis of GBS can be correlated to that of Sarvang vata as follows.



Thus, understanding pathogenesis of GBS with the Ayurveda view under the heading of Sarvang vata gives satisfactory explanation of the etiopathogenesis of the disease there by offering the ways to treat the patient with the ayurvedic principal for the betterment of the lives of the patient.

CONCLUSION

The remarkable resemblances between the causative factors, pathophysiological processes, and primary symptoms of Sarvang Vata and Guillain-Barré Syndrome (GBS) underscore the potential advantages of an integrated approach.

This approach has the promise of enabling early diagnosis and optimizing treatment strategies for these conditions.

This integrated approach not only enhances patient outcomes but also equips healthcare providers with a valuable tool to affirm their clinical assessments and provide more effective medical care.

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