

**AN AYURVEDIC APPROACH IN DIABETIC NEUROPATHY W.S.R TO DISTAL  
SYMMETRICAL POLYNEUROPATHY****Dr. Bhargavi P.\*<sup>1</sup>, Dr. Muralidhar<sup>2</sup> Dr. Prashasth M. J.<sup>3</sup>**<sup>1</sup>PG scholar, Department of Kayachikitsa SKAMCH&RC, Bengaluru.<sup>2</sup>Professor, Department of Kayachikitsa SKAMCH&RC, Bengaluru.<sup>3</sup>Reader, Department of Kayachikitsa SKAMCH&RC, Bengaluru.

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**Dr. Bhargavi P.**PG scholar, Department of  
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Bengaluru.**ABSTRACT**

According to the International diabetes federation, 425 million people worldwide are currently affected by diabetes, one of the leading cause of neuropathy. It affects between 50-90% of patients with diabetes, and of these 15-30% will have painful diabetic neuropathy. Most common among the neuropathies are chronic sensorimotor distal symmetric poly neuropathy. The aetiology of distal symmetrical polyneuropathy is attributed to hyperglycaemic damage and that the prevalence of it is already increased in the setting phase of pre-diabetes. Symptoms of distal symmetrical polyneuropathy are explained in classics in the context of prameha purvarupa. Hence an attempt is made to understand distal symmetrical polyneuropathy as purvarupa of prameha from Ayurveda point of view.

**KEYWORDS:** Distal symmetrical polyneuropathy, Prameha purvarupa, Diabetes mellitus.**INTRODUCTION**

Diabetes Mellitus is defined as a heterogeneous metabolic disorder characterized by common feature of chronic hyperglycemia with disturbance of carbohydrate, fat and protein metabolism.<sup>[1]</sup> India is having the highest prevalence of DM with its incidence estimated at 7% of adult population largely due to genetic susceptibility along with changing lifestyle of low activity and high calorie diet in growing Indian middle class.<sup>[2]</sup> Diabetes related complications can be divided into vascular and non-vascular complications. The vascular complications are further subdivided into microvascular such as retinopathy, neuropathy and nephropathy. Macrovascular complications such as coronary heart disease, peripheral arterial disease and cerebrovascular disease, micro-vascular complications are diabetic-specific.<sup>[3]</sup>

**Diabetic neuropathy**

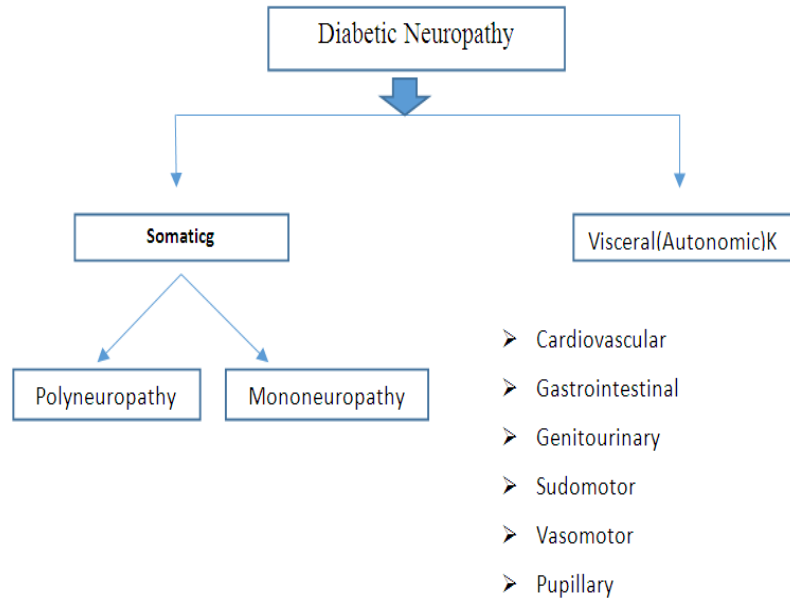
Diabetic neuropathy is a common complication of diabetes, with an estimated lifetime prevalence of about 50%. Diabetic neuropathy can be manifested in a variety of syndromes, including radiculoplexopathy and autonomic neuropathy, but the most common form is a characteristic distal symmetrical polyneuropathy, resulting from large fiber nerve damage.<sup>[4]</sup> Diabetic autonomic neuropathy shortens the lifespan resulting in death of 25-50% of patients within 5-10years of occurrence. Autonomic neuropathy can be manifested as gastroparesis, urinary retention, several other forms of neuropathy may mimic the findings of diabetic sensory neuropathy and mono neuropathy. Chronic inflammatory

polyneuropathy, vitamin b12 deficiency, hypothyroidism and uremia should be ruled out in the process of evaluating diabetic peripheral neuropathy.<sup>[5]</sup>

**Pathogenesis of diabetic neuropathy**

The basic pathologic changes are segmental demyelination, Schwann cell injury and axonal damage. The pathogenesis of neuropathy is not clear but it may be related to diffuse microangiopathy, or maybe due to accumulation of sorbitol and fructose as a result of hyperglycemia leading to deficiency of myoinositol<sup>6</sup>. Several risk factors are associated with diabetic neuropathy including poor glycaemic control, older age, duration of diabetes, hypertension, alcohol and smoking.<sup>[7]</sup>

**Classification**



**Distal symmetrical polyneuropathy**

The most common form of diabetic neuropathy is distal symmetric polyneuropathy.<sup>[8]</sup> For some patients, neuropathic pain can be severe and disabling, resulting in major reduction in quality of life. It can be diagnosed by presence of classic symptoms and by loss of ability to perceive pressure from a nylon (Semmes-weinstein) monofilament.<sup>[9]</sup>

**Signs and Symptoms<sup>[10]</sup>**

- The most common clinical signs are diminished perception of vibration sensation distally ‘glove and stocking’ impairment of all other modalities of sensation.
- Loss of tendon reflex in the lower limbs.
- Paresthesia in the feet (rarely in the hands)
- Pain in the lower limbs (dull and aching)
- Burning sensation in the soles of feet, cutaneous hyperesthesia and an abnormal gait often associated with sense of numbness in the feet.
- Weakness and atrophy, in particular of the interosseous muscles.
- Symptoms are typically more prominent at night.
- Patients with simple numbness can present with a painless foot ulceration, so it is important to realize lack of symptoms doesn’t rule out presence of neuropathy.

**Analysis of Diabetic Neuropathy in Ayurveda View**

In prameha purvarupa karapada, daha (burning sensation of soles and palms), suptata (tingling sensation) and daha has been mentioned as one of the symptom.<sup>[11]</sup> As prameha is tridoshaja vyadhi,<sup>[12]</sup> involvement of vata and pitta causes pada daha.<sup>[13]</sup> Vata kapha causes pada harsha.<sup>[14]</sup>

**Chikitsa**

- Prameha chikitsa is first line of treatment.

- Cardiovascular
- Gastrointestinal
- Genitourinary
- Sudomotor
- Vasomotor
- Pupillary

- Other treatment modalities for diabetic neuropathy include
- Udwartana with triphala churna
- Application of Avarthitha taila- ksheerabala 101
- Lepa with Guduchi, Shatavari, Bala, Ushira
- Takradhara with Musta, Amalaki, Ushira, Chandana and Bala
- Application of Shatadouta ghrita along with Gairika
- Virechana- Snehapana with Mahatiktaka ghrita, Tiktaka ghrita, guggulu tiktaka ghrita.

**Shamana Aushadi**

Kashaya	Dhanwantara Kashaya Astavarga Kashaya Mahatiktaka Kashaya
Arishta	Lodrasavam Nimbamruthasavam
Churna	Aragwadadi churna Shuntibaladi churna

Vati	Chandraprabha vati Shilajtwadi vati Shiva gutika
Ghrita	Dhanwantara ghrita Rasna dashamula ghrita
Bhasma	Abhraka bhasma Rajata bhasma Pravala pishti
Rasa yogas	Vasantha kusumakara rasa Vatagajankusha rasa Yogendra rasa Ekangaveera rasa

**Pathya and Apathya-** Pathya and apathya advised for Prameha has to be followed.

Pathya Ahara- Jeerna shali, Shastika, kodrava, Yava, Godhuma, Uddalaka, Shyamaka, Chanaka, Adhaki, Kulatha, Mudga, Patola, Karavellaka, Shigru, Jambu, Dadima, Amalaki, Kapitha, Tinduka, Kharjura, Vishkira mamsa, Jangala mamsa, Sarshapa, Atasi Sarodaka, Kushodaka, Madhuka Saktu, Yavodana, Yusha, Madhu, Hingu, Maricha and Lashuna.

Pathya Vihara- Vyayama, Yogasanas such as surya namaskara, ardhamatysendrasana, mandukasana. In krisha pramehi to protect the bala, Ativyayama should be avoided.

Apathya Ahara- Dadhi, Ghritha, Kshira, Sharkara, Anooa Gramya ahara, Audaka mamsa, Ikshurasa, Pishtanna and Navanna.

Apathya Vihara- Divaswapna, Dhoomapana, Sweda, Raktamokshana, Mutravega dharana.

## DISCUSSION

The symptoms of prameha purvarupa can be understood with distal symmetrical polyneuropathy. The renal threshold for glucose level for a healthy individual is 180mg/dl, beyond which the proximal tubule begins to excrete glucose in the urine. For the manifestation of symptoms of diabetes mellitus such as polyuria, polyphagia and polydipsia the glucose level should be beyond 180mg/dl and it may go undiagnosed for a longer duration. However, presence of high glucose level in the body leads to numbness and tingling in feet which may result from nerve damage due to changes in the nerves and "neuron starvation". So the symptoms of chronic sensorimotor polyneuropathy may manifest in purvarupa avastha of prameha.

## CONCLUSION

It is found in various studies that over 50% of diabetic subject in India have a poor glycaemic control that lead to microvascular and macrovascular complications. Diabetic neuropathy is a complex multifactorial disorder with varied clinical features which resembles prameha purvarupa, however it can't be directly co-related to any predefined condition in Ayurveda. Early diagnosis and treatment of this condition will prevent further deterioration of the disease.

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