



Clinical Study to Evaluate Efficacy of Aardhamatrika Basti in the Management of Madhumeha Janya Nadipratan Shotha w.r.t Diabetes Neuropathy



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Abstract

Background: Diabetic neuropathy (DN) is a common disorder and is defined as signs and symptoms of peripheral nerve dysfunction in a patient with Diabetes Mellitus (DM) in whom other causes of peripheral nerve dysfunction have been excluded. It accounts for hospitalization more frequently than other complications of diabetes and also is the most frequent cause of non-traumatic amputation.

Objectives: To evaluate Clinical efficacy of Aardhamatrika Basti in the management of Madhumeha Janya Nadipratan Shotha w.r.t Diabetes Neuropathy.

Methodology: Aardhamatrika Basti was planned in order to have an effective and safe result. It is an observational clinical study with pre, mid and post test design, where 40 patients of DPN were randomly selected and subjected to Aardhamatrika Basti procedure for 16 days. Aardhamatrika Basti Contains Dashamoola Kashaya, Shatapushpa Churna, Saindhav, Madhu, Ashwagandha Taila.

Result: Result obtained with respect to the parameter Daha (burning pain), Chim Chimayan (tingling sensation), Suptata (numbness), Dourbalya (weakness in extremities) had showed statistically highly significant.

Conclusion: Aardhamatrika Basti presents a window of opportunity in the clinical management of Diabetes Neuropathy. Ideally this technique should be practically taught to the physicians and should be evaluated scientifically using principles of biophysics and nerve conduction studies.

Keywords: Diabetes neuropathy; Aardhamatrika basti

Introduction

The Ayurvedic physician today has to face the challenge of dealing with growing number of Madhumeha patients with or without neuropathies. Modern system of medicine has provided us some excellent facilities to detect Diabetic Mellitus with or without neuropathy. The diagnostic tools tend to be essential parts of physicians armamentarium and should always be utilized for the welfare of patients. Even Acharya Sushruta has stated in his Sutrasthanam that he should open-minded welcome the knowledge and ideas of others [1].

- Diabetes Mellitus the most common endocrine disorder with or without neuropathies
- Seventh among the leading cause of acquired blindness
- 25% cases of Diabetes complications with end stage of renal failure
- 50% case of Diabetes complications with lower limb amputations
- Diabetic neuropathy is relatively earlier and commonest

poorly controlled complication occurring in almost every third diabetic in same form or the other

F. Diabetic neuropathy the most life spoiling diabetic complication has tremendous ramifications for the Quality of Life of diabetics

G. The classification of diabetic neuropathy is difficult because it almost certainly comprise of several different conditions

H. The intrinsic cause of diabetic neuropathy is unknown

I. NIDDM patients are more prone to suffer from diabetic neuropathy compared to other types of Diabetic mellitus

J. Diabetes neuropathy is a leading cause in impairment of nervous disorders at any stage and ages

Samprapti of Diabetic Neuropathy

Dosha prakruti

- Vata-Samana Pradhan Vyan-Rukshatah-Laghavatah-Chalagunatahavikruti

- B. Pitta-Pachaka Pradhan sadhaka pitta-Ushnatah-dravyatah-tikshnatah-gunatahavikruti
- C. Kapha-Kledaka Pradhan kapha
- D. Dhatu Prakruti-MajjaPradhan All dhatu(except Asthi) with vasa, Lasika, ojas and Ambu
- E. Agni Prakruti-Majjadhatvagnimandya
- F. Adhistan-Mastishkapradhanvatanadi
- G. Strotas-Majjavaha-mutravaha and udakvaha
- H. Strotusdushti Lakshanam-Sangaatmak
- I. Vyadhi Utpatti Sthanam-Majjadhatum-mastishka-vatanadi
- J. Vyadhi Swabhav-chirakalin
- K. Vyadhi Marga-aabhyantar-marmaasthi-sandhigata
- L. Vyadhi Vaisheeshtaya-Kampa-Dahavata, prachiti, hasta padagata
- M. Pratyatma Lingam-Chimachimayanvatapratichi
- N. Dhatugataavastha-sarvadhatugata
- O. Sadhya-Asadhyatva-Kruchchrasadhya
- P. Chikitsaparinama-Chirakalin proper management
- Q. Rugna Vayatahsambadh-Vardhakyavastha>Yuvavastha (Relating to age factor)-(old age)(young age)
- R. Sex-female<Male
- S. Sankamarna-Non-infection
- T. Aanuvansheekadisambadha-Aanuvanshikavyadhi
- U. Dhatuprabhav-All Dhatuskshayajanya (including Aasthidhatu in late stage)

Thus the Dhatushaithil-Dhatu Kshaya Dhatu Ksharanprakriya and Dosha dushti are the major factor resulting in diabetic neuropathy Management should satisfy the following aims:

- A. To check Bahudravataushna and rukshaguna of Kapha pitta and Vata respectively
- B. To correct Bahuadadhatu of Medadhatu
- C. To provide strength to sthanaeg. MajjagataAvastha
- D. To provide nourishment of Dhatu
- E. To check Dhatuksharan and Ojakshaya

Aims and Objective

- A. To evaluate clinical Efficacy of Aardhamatrika Basti in the management of Madhumehajanya Nadipratan Shotha w.r.t Diabetes Neuropathy
- B. To undertake clinical study of prameha Upadrava with special reference to diabetic neuropathy and its management

with herbal medicated Takradhaara

- C. To review the view on Diabetic Neuropathy as per modern medical science with latest up to date literature

Materials and Method

- A. Research Place: Dept of Kayachikitsa, OPD/IPD DY Patil School of Ayurveda
- B. Sample Size: 40
- C. Type of Study: Single Arm Open Clinical Study

Ingredients of Aardhamatrika Basti (Table 1)

Table 1: Ingredients of Aardhamatrika Basti.

1	No of Patients	40
2	Treatment method	Aardhamatrik Basti-as per niruha basti
3	Quantity	500ml
4	Route of administration	Rectal route
5	Treatment period	16 days
6	Bastikala	Pratahkala
7	Upakrama	Purvakarma, Pradhankarma, Paschatkarma

- A. Dashmoola Kwath-500ml
- B. Shatapushpa-10gm
- C. Saindhalawana-10gm
- D. Madhu-100gm
- E. Taila(Ashagandhadi Taila)-100ml
- F. Madanphala Churna-50gm

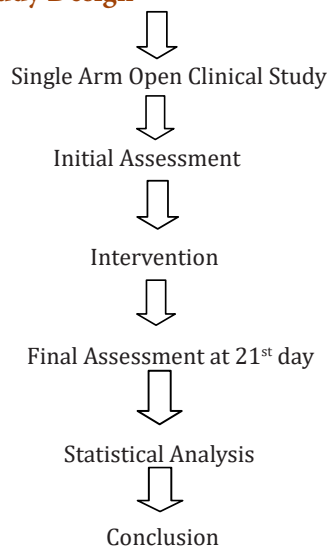
Inclusion Criteria

- A. Well established case of Diabetic Neuropathy with good control of blood sugar were selected for the trial after proper examination
- B. Diet: Advised by physician or hospital made diet
- C. Age: 20 to 70
- D. Sex: Male and Female

Exclusion Criteria

- A. Patients with severe acute complication of Diabetic mellitus requiring emergency management
- B. Patients with major diabetic complication eg. Retinopathy, Nephropathy etc
- C. Pregnancy in female patients
- D. Patients with systemic and metabolic diseases eg. Koch's, kidney diseases, hepatic and haematological disorders

Study Design



Neuropathy disability score a modified form of the Neuropathy Disability Score (NDS) is a relatively simple, quick clinical assessment tool that aims to combine a number of clinical tests to provide an assessment of the risk of neuropathic ulceration. Both feet should be tested and scored independently, and the results added together. The maximum score for the modified NDS is 10, indicating a complete loss of all sensory modalities and absent reflexes. A score of six or more has been found to indicate an increased risk of foot ulceration [2-5] (Table 3-8).

Table 4: Subjective parameter based on kruskal wallis non parametric test.

S.No	Symptoms	P		% Improvement	
		BT	AT		
1	Hasta Pada Daha	0.94	0.52	<0.0001 Considered extremely significant	44.68%
2	Hastapada chimchimayan	1.56	0.55	<0.0001 Considered extremely significant	64.74%
3	Vedana	1.52	0.5	<0.0001 Considered extremely significant	67.10%
4	Kampa	1.8	0.5	<0.0001 Considered extremely significant	72.20%
5	Vikruta sparsha prachiti	1.4	0.23	<0.0001 Considered extremely significant	83.90%
6	Daourbalya	1.8	0.5	<0.0001 Considered extremely significant	72.20%

Table 5: NDS: Neuropathy disability score.

S. NO	Neuropathy Disability Score	BT	AT	P Value	T Value	% Improvement
1	Neuropathy Disability Score	3.25	2.2	<0.0001 considered extremely significant	4.422	32.30%

Graphical Representation

Table 6: Age wise distribution.

Age	30-40	40-50	50-60	Above 60
No of Patients	5	15	17	13

Age wise distribution (Table 6) (Figure 1)

Table 7: Sex wise distribution.

Sex Wise Distribution	Male	Female
No of Patient	25	15

Assessment Criteria

Subjective parameters (Table 2)

Objective parameters

Table 2: Subjective parameters.

	Symptoms	No Symptoms-0	Mild-1	Moderate-2	Severe-3
1	Hasta Padada Daha	+	++	+++	++++
2	Hasta Pada Chimchimayan	+	++	+++	++++
3	Vedana	+	++	+++	++++
4	Kampa	+	++	+++	++++
5	Dourbalya	+	++	+++	++++
6	Vikara Sparsha Prachiti	+	++	+++	++++

Observation and result (Table 3)

Table 3

Neuropathy Disability Score	BT	AT

Subjective parameter based on Kruskal Wallis non parametric test (Table 4)

Neuropathy disability score (NDS) (Table 5)

Sexwise distribution (Table 7) (Figure 2)

Chronicity wise distribution in patients of diabetic neuropathy (Table 8) (Figure 3)

Table 8: Chronicity wise distribution in patients of diabetic neuropathy.

Chronicity	<5yrs	6-10yrs	>10yrs
No of Patients	10	15	15

Discussion

- A. According to Age wise distribution, Patients between age group of 50-60 more patients are prone to Diabetes Neuropathy
- B. Patients having Hastapada Daha have 44.68% improvement
- C. Patients with Hastapada chimchimayan has 64.74% improvement
- D. Patients having Dourbalya has 72.2% improvement

E. Improvement in NDS score was 32.3%

Aardhamatrik Basti prevents Dhatu-Shaiyhilya and Dhatupaka. It maintains the equilibrium of the body tissue with Hradya and prevents exhaustion or Dhatupaka to prevent loss of Ojas, and

nourishes all Dhatu tissue including Mansa-Majja and Shukra and enhances more strength to the Dhatus at the cellular levels and increase the proper cellular metabolism in stage of chronic stage of Diabetic neuropathy [6-8].

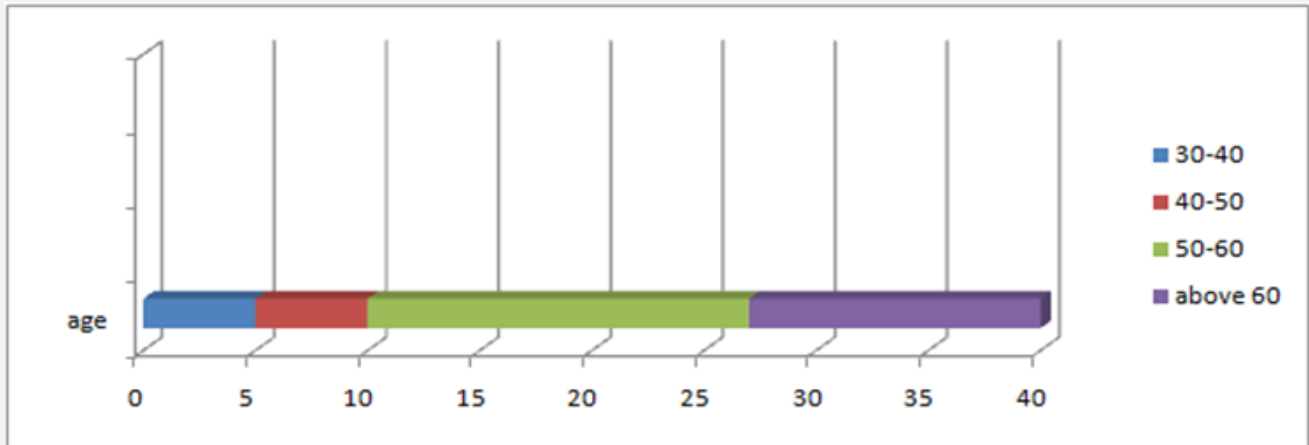


Figure 1: Age wise distribution.

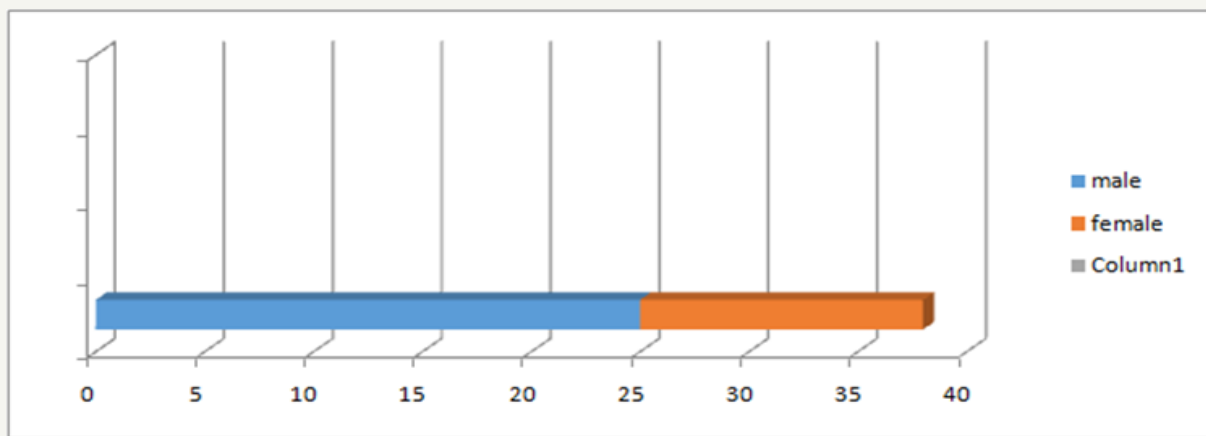


Figure 2: Sexwise distribution.

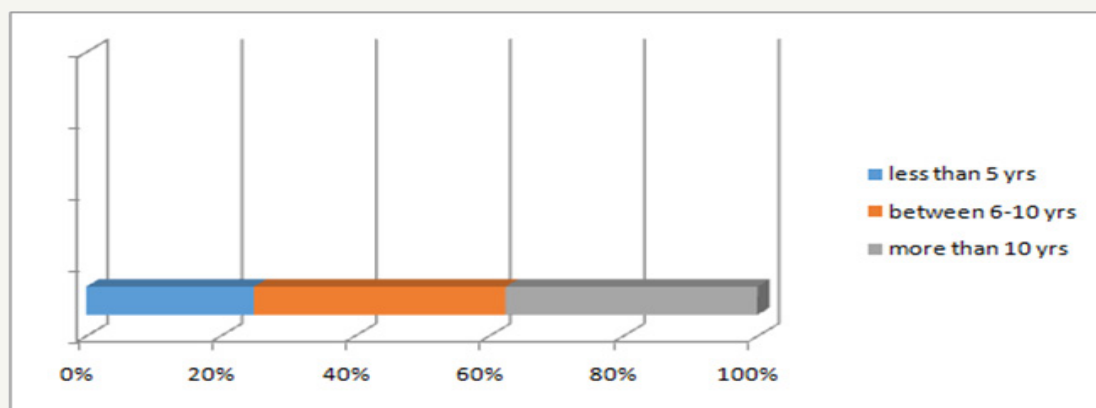


Figure 3: Chronicity wise distribution in patients of diabetic neuropathy.

It produces the following changes

A. Cure the vitiated or aggravated Dosha (elimination of circulatory waste products)

B. Increases digestive capacity (altered metabolism-Agni sanrakshan)

C. Purification of Koshtha and remove the constipation (Koshthashudhi)

D. It provides micro-nutrients to build the body tissue and help strengthen the host defence mechanism without increasing circulatory levels of sugar, fats and metabolites

E. Enhances the function of all Agnisthul and Sukshmaagni(AamaPancha)

F. Production of better Dhatus and Upadhatus(immunomodulatory action-Dhatusanrakshana)

G. Enhances strength of body(adaptogenic activity)

H. Proper functioning of nervous tissues(improvement of micro circulation by modulation of macrophage function-Stroto-shodhan)

I. Increases the resistance of body (Dhatuwardhan- maintain tissue regeneration)

J. Delays the aging process (Rasayan karma)

Acknowledgement

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Ethical Clearance

This clinical study was ethically cleared by institutional ethical committee. The drugs used in the study were authenticated by

Dravyaguna and Rasashashtra Dept. of DY Patil School of Ayurveda.

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