

A CASE OF DIABETIC SENSORY POLYNEUROPATHY SUCCESSFULLY MANAGED WITH ATIBALAMOOLA KVATHA

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Abstract

CASE HISTORY: *In August 2017, a 60 years old male patient having diabetes mellitus since 5 years and hypertension since 3 years, came to the P D Patel Ayurveda hospital, Nadiad with complains of burning sensations, pain along with numbness in both lower limbs for 5 months. He was assessed by signs and symptoms along with laboratory investigations and neuropathy test (by neuropathy analyser machine) and diagnosed with diabetic sensory polyneuropathy. He was treated with Atibalamoola (root of *Abutilon Indicum* Linn.) Kvatha 10g two times in a day orally for total duration of 4 weeks. Quantitative sensory testing was done with the neuropathy analyser vibrothermDx from Diabetic Foot care, for detection of vibration, hot and cold sensation threshold. The patient was assessed on every 2 weeks.*

RESULTS: *He got satisfactory relief in all the signs and symptoms. Patient is able to identify the vibration sensation with only 11 frequencies per second which suggest normalcy. Cold sensations are also noticed at 19°C. Earlier it was noticed at 16°C by the patient. Hot sensations also improved markedly by noticing it at 43°C which was not noticeable earlier even at 49.6°C..*

Keyword: *Diabetes Neuropathy, Atibalamool kwath, Neuropathy test*

1.INTRODUCTION

Peripheral sensory poly-neuropathy is the most common neurological syndrome seen in diabetes. This

process involves all somatic nerves but has a strong predilection of distal sensory nerves of the feet and lesser extent to hands. Early on most of the patients with peripheral neuropathy are asymptomatic, with subtle abnormalities on examination, including the loss of vibration sense, light touch, two point discrimination and thermal sensitivity. Once they become symptomatic, patients typically report numbness and tingling sensation, often in their classic "stoking-glove" distribution. No any conventional modern treatment exists to prevent or reverse neuropathic changes or to provide total pain and other symptomatic relief. Clinical guidelines recommend symptomatic relief through the use of antidepressants such as amitriptyline and duloxetine, the γ -aminobutyric acid analogues gabapentin and pregabalin, opioids and topical agents such as capsaicin. After some time they become ineffective and also develop some unwanted effects i.e. drowsiness, anticholinergic effects, potentiating of cardiac arrhythmias, dizziness, headaches and diarrhea.

2.PRESENT HISTORY AND CLINICAL CONCERNS:

A 60 year old male patient was diagnosed with type 2 Diabetes Mellitus since 5 years and hypertension since 3 years. he is taking combination of Gliclazide 1mg and Metformin 1000mg one tablet once in a day for diabetes mellitus and combination of Amlodipine 5mg one tablet in a day for hypertension. In spite of that, for about last 10 months, he started feeling pain, burning sensation, tingling sensation and numbness in both feet with burning sensation in palms. he also started having unusual feeling when her feet touched to the ground or when he was wearing footwear. Sometimes her footwear also got slipped from her feet unknowingly. His feet

were feeling very soft and spongy to her. Because of all these complains, he was having difficulty while walking and decreased sensations in feet. So she came to P. D. Patel Ayurveda hospital, Nadiad in August 2017 for the alternative treatment.

3.MATERIAL AND METHOD

3.1. clinical findings:

On the first visit, patient was conscious with intact mental status but looks anxious and his Blood Pressure was 130/80 mm of Hg, Pulse 72/min, Respiration rate 19/min and regular.

Random blood sugar was 86 mg/dl with regular intake of anti-hyperglycemic drugs as mentioned above.

3.2. diagnostic findings:

Diagnosis was confirmed with clinical signs and symptoms i.e. numbness, pain, tingling and burning sensations in the feet and palm.

Positive markings of vibration, cold and hot sensations impairment through the VibrothermDx neuropathy analyzer [Figure-1] were noted. Vibrotherm is a machine specially prepared by a diabetic foot care company of Chennai, for the numerical assessment of the vibration, cold and hot sensation thresholds in the diabetic patients.



[Figure-1]

[Table-1] Before treatment assessment of vibration, cold and hot sensations.

Sensations	Right foot	Left foot
VIBRATION	Severe(31)	Moderate(25)
COLD	Mild(18.4)	Mild(17.2)
HOT	Severe(48.6)	Severe(49.4)

4.THERAPY:

Atibalamoola (root of *Abutilon indicum* Linn.) kvatha 40ml (prepared according to the classical formation of the kvatha from 10 g of crude drug) two times (morning and evening) in a day was given to the patient on empty stomach for one month period.

All the conventional modern medicines for blood sugar level and for hypertension mentioned above were continued along with this therapy.

5.OUTCOMES:

A specifically designed electronic machine Neuropathy analyzer, designed by Diabetic foot care India, Chennai, can record the perceptions of vibration, heat and cold sensations exactly with the help of computer will be used to record these sensations before and after the treatment.

[Table-2] The criteria used to evaluate vibration, heat and cold sensations by neuropathy analyzer

Sensations	Normal	Mild	Moderate	Severe
Inability to feel vibration	Up to 15 fr/sec	16-20 fr/sec	21-25 fr/sec	≥26 fr/sec
Inability to feel hot	Up to 42°C	43-45°C	46-48°C	≥49°C
Inability to feel cold	Up to 20°C	19-15°C	14-10°C	≤ 9°C

[Table-3] Improvement in sensations by neuropathy analyzer machine

	Sensation	07/08/2017	21/08/2017	04/09/2017
Right foot	Vibration	Severe(31)	Moderate(25)	Normal(12)
	Cold	Mild(18.4)	Normal(19.8)	Normal(19.8)
	Hot	Severe(48.6)	Normal(40)	Mild(44.8)
Left foot	Vibration	Moderate(25)	Moderate(25)	Mild(17)
	Cold	Mild(17.2)	Normal(20.2)	Normal(20.4)
	Hot	Severe(49.4)	Mild(42.6)	Moderate(46.8)

[Table-4] Improvement in signs and symptoms

Sign and symptoms	Before Treatment	After Treatment	
		2 weeks	4 weeks
Pain	Almost daily and impair routine work	Often (more than 3 times in a week)	Absent
Numbness	Often (more than 3 times in a week)	Occasional (less than 3 times in a week)	Occasional (less than 3 times in a week)
Burning sensation	Often (more than 3 times in a week)	Occasional (less than 3 times in a week)	Never
Tingling sensation	Almost daily which responsible to impair routine work	Often (more than 3 times in a week)	Occasional (less than 3 times in a week)

6.DISCUSSION:

Sensory polyneuropathy occurs because of damage to the nerves. In Ayurveda, In *Prameha* the extract or fine products of all the dhatu are come out through urine and due to *dhatukshaya* and it leads provocation of *vata* again. *Suptata* (numbness), *shoola* (pain) and tingling sensation are because of vitiation of *vata dosha*. Hence, *Balya*, *rasayana* and anti- *vata* therapy is helpful in this case.

Atibala is well known as *vata* pacifying medicine by its properties i.e. *shita virya*, *madhura rasa* and *balakruta* , *tridosahara* and *rasayana* effect.

Reasons i.e. high prevalence of diabetic sensory polyneuropathy with its health and socio-economic impact and the need for updated evidence-based information to refine patient-tailored treatment by weighing up the risks of each treatment against its proven benefits and safety can make this single case report of particular interest.

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