

ROLE OF BASTI IN THE MANAGEMENT OF HYPOTHYROIDISM: A CASE STUDY

Sahu Sarita¹, Pandey Subhesh Kumar², Shukla Umesh³

¹M.D.Scholars, PG Department of Panchkarma;

²M.D.Scholars, PG Department of Roga nidan evam vikrati vigyana;

³HOD & Professor, PG Department of Panchkarma;

Pt. Khushilal Sharma Ayurveda College, Bhopal, Madhya Pradesh, India

Email: subhpandey84@gmail.com

ABSTRACT

Hypothyroidism is the commonest endocrine disorder worldwide. The prevalence of hypothyroidism in India is 11% and more prevalent among the female, with male to female ratio being 1:6. Hypothyroidism generally occurs after destruction of thyroid follicle mainly because of auto immunity. In *Ayurveda* although there is no specific terminology or clinical entity described as such, however because the disease is biochemically diagnosed just not only based on symptoms. The clinical presentation of the hypothyroidism show resemblance with different clinical condition in *ayurveda* classics that includes *kaphaavruttavata* (*kaphaavruttaudanavata*, *kaphaaruttasamanavata*), *dhatwaagnimandya*, which results to metabolic dysfunction in the body. **Aim:** To assess the efficacy of *basti karma* in the management of hypothyroidism. **Materials and Methods:** The present case study is upon a 30 years old newly diagnosed case of hypothyroidism with the complaints of weight gain, constipation, headache since 2-3 months, at the *panchakarma* OPD of Pt. khushilal sharma govt ayurvedic college, Bhopal. The patient was treated with *bhadradi Asthapan basti* along with *tila taila anuvasana basti* in the pattern of 1:3 for 17 days. Assessment was done after *basti* based on thyroid profile and symptomatic relief. **Observation:** the *basti karma* yielded moderate symptomatic relief and normalize the TSH value. **Conclusion:** On the basis of result obtained it can be concluded that *basti* can be used as effective treatment in the management of hypothyroidism.

Keywords: Hypothyroidism, *Kaphaavrutta-vata*, *Bhadradi Asthapan Basti*

INTRODUCTION

Thyroid gland is one of the most important and sensitive endocrine gland, as it easily responds to stress and stimuli. It regulates the metabolism of the body by its hormones and insufficient level of thyroid hormone is Hypothyroidism which generally describes as under-active thyroid and it is characterized by specific signs and symptoms such as slower metabolic rate, weight gain, sleepiness, dry and cool skin etc¹. Global inci-

dence of hypothyroidism is increasing day by day and it is a very common encounter problem in practice. It is the most common form of thyroid disorders and commonly encountered problem in clinical practice. It has been estimated that about 42 million population in India is suffering from thyroid disorders². The prevalence of hypothyroidism in India is 11%³ and more prevalent among the females, with male female ratio

being 1:6⁴. At present thyroid diseases form the second most common Endocrine disorder in India next to Diabetes mellitus⁵. 95% of all hypothyroid cases are the primary hypothyroidism. Population with autoimmune disease such as type-1 diabetes or a family history of thyroid disease is at risk of developing Hypothyroidism. The clinical presentation of the Hypothyroidism shows resemblance with different clinical conditions in *Ayurvedic* classics that includes *kaphaavritta-vata*⁶ *kaphaavritta- udanavata*⁷, *kaphaavritta-samanvata*⁸, *Dhatvaagni mandyajanya*⁹ etc. *Dhatvaagni mandya* results to metabolic dysfunction in the body. To counteract *Avaranjanya samprapti*, *Basti* has specific role and also has been recommended in *kaphaavritta vata*¹. hypothyroidism affect the quality of life of individuals, inspite of many advances the modern management of hypothyroidism remains unsatisfactory. The only treatment available is synthetic thyroid hormone which patient has to take lifelong. It is therefore, thoughtwise to offer a treatment plan of natural resources, safe, cost- effective and sustainable. *Ayurveda* has certain specific *panchakarma* procedures which is believed to facilitate into maintain metabolism and overall improvement in quality of life of patient.

MATERIALS & METHODS

Case Report : A 30 year old newly diagnosed male patient of hypothyroidism (dated 25/06/2018) visited

to PT. KHUSHILAL SHARMA GOVT AYURVEDIC COLLEGE BHOPAL with complaints of weight gain. Constipation, headache and in laboratory investigation increase the level of TSH.

Examination of Patient: The general and specific examination of the patient was conducted as per modern and Ayurveda and the details are highlighted in table 1, 2

1. Prakruti (Constitution of the person), Vatapradhan Pitta, Rajas
2. Sara (quality of tissue) Madhyam (average): Ras, Rakta, Mansa
3. Samhanana (body built up) Madhayama (average)
4. Pramana (antropometric measurement) Wt.40kg Ht.5feet
5. Satmya (adatability) Madhyama (average)
6. Satva (mental strength) Uttama (good)
7. Aaharashakti (food intake and digestion capacity) Abhyavaharan: (average) Jaran: 5-6 hrs.
8. Vyayamas hakti (exercise capacity) Avara (poor)
9. Vaya (age) Yuvavastha (adult)
10. Desha (habitat) and he approached the present treatment facility for conservative and alternative treatment.

Patient had no H/o alcohol consumption or any trauma or accidental injury.

Table 1: *Aaturbala Pramana Pariksha* (examination of the strength of the patient):

<i>Prakruti (Constitution of the person)</i>	<i>Kaphavatapradhan</i>
<i>Sara</i>	<i>Madhyam</i>
<i>Samhanana</i>	<i>Madhyama</i>
<i>Pramana</i>	<i>Madhyama</i>
<i>Satmya</i>	<i>Madhyama</i>
<i>Satva</i>	<i>Pravara</i>
<i>Aaharashakti</i>	<i>Abhyavaharan(madhyama)</i> <i>Jaran:5-6 hrs.</i>
<i>Vyayamashakti</i>	<i>Avara(poor)</i>
<i>Desha</i>	<i>Sadharana</i>

INVESTIGATION:

Table 3:

TEST	RANGE (before treatment)
TSH	16.40
T3	124
T4	6.3

TREATMENT ADMINISTERED:

Table 4: Procedural therapies were administered in the patient. The details are mentioned in this table

S.no	Treatment	Drug used	dose	Duration
1.	<i>Sthanikabhyang(kati region)</i>	<i>Narayan oil</i>	Q.S	17DAYS
2.	<i>Sthanik nadi swedana</i>	<i>Dashmoola kwath</i>	Q.S.	17 DAYS
3.	<i>Basti plan(1:3)</i>	<i>Anuvasana Basti(til tail)</i>	60 ml	
		<i>Niruha basti (Bhadradi asthapan)</i>	480 ml	

Table 5: INGREDIENT OF NIRUHA BASTI

S, no.	KWATHA DRAVYA	BOTANICAL NAME
1.	<i>Bhadra</i>	<i>Myrica esculenta</i>
2.	<i>Nimba</i>	<i>Azadirachta indica</i>
3.	<i>Kulatha</i>	<i>Dolichos biflorus</i>
4.	<i>Ark</i>	<i>Calotropis procera</i>
5.	<i>Koshataki</i>	<i>Luffa acutangula</i>
6.	<i>Amrita</i>	<i>Tinosporia cordifolia</i>
7.	<i>Devdaru</i>	<i>Cedrus deodara</i>
8.	<i>Sariva</i>	<i>Hemidesmus indicus</i>
9.	<i>Brihati</i>	<i>Solanum indicum</i>
10.	<i>Murva</i>	<i>Cissampelos pareira</i>
11.	<i>Patha</i>	<i>Marsdenia tenacissima</i>
12.	<i>Aragvadha</i>	<i>Cassia fistula</i>
13.	<i>Vatsaka</i>	<i>Holarrhena antidysenterica</i>

Table 6: Additive of Bhadradi Asthapan Basti

S.NO	ADDITIVE OF BASTI	QUANTITY
1.	<i>KWATHA</i>	200ml
2.	<i>KALKA</i>	10 gm
3.	<i>GOMUTRA</i>	100 ml
4.	<i>MADHU</i>	60 gm
5.	<i>SARSHAPA TAIL</i>	35 ml
6.	<i>TIL TAIL</i>	25 ml
7.	<i>KANJI</i>	30 ml
8.	<i>YAVAKSHARA</i>	10gm
9.	<i>SENDHAV LAVANA</i>	10gm

Table 7: BASTI SCHEDULE ADMINISTERED IN THE PATIENT

DAY	BASTI	DOSE	TIME OF BASTI ADMINISTRATION	TIME OF BASTI PRATYAGAMANA	COMPLICATION IF ANY
	A	60 ml	10 am	3 pm	
	N	480 ml	10:30am	10:45am	
	N	---	10:30 am	10:48 am	
	N		10:15 am	10:35 am	
	A	60 ml	10:30 am	3:30 pm	
	N	480 ml	10:00 am	10:20am	
	N	-	10:45am	11 am	
	N	-	10:45 am	11:05am	
	A	60 ml	10:00 am	3:20 m	
	N	480 ml	10:15 am	10:30am	
	N	-	10:15am	10:35 am	
	N	-	10:30 am	10:48 am	
	A	60 ml	10:00 am	4:00pm	
	N	480 ml	10:45 am	11:05 am	
	N	-	10:30 am	10:50am	
	N	-	10:00 am	10:20 am	
	A	60 ml	10:45 am	3:30pm	Nil

ON OBSERVATION: Post treatment changes were noted mainly in respect to range of thyroid profile because it is a biochemically diagnosed disease and also on the basis of presenting symptoms.

Table 7: Observation of pre and post treatment changes in thyroid profile

	BT			AT	NORMAL REFERENCE RANGE
1.	TSH	16.40	6.09		
2.	T3	124	98		
3.	T4	6.3	5.0		

DISCUSSION

In *Ayurvedic* Classics there is no direct co-relation of hypothyroidism. The *ayurvedic* view of the understanding about its pathophysiological phenomenon ,and the clinical manifestation while illucating the concept the only option available with us think of *doshik* combination pattern and the *avarana* and the

involvement of dhatu along with status of *agni*. Clinical presentation of the hypothyroidism show resemblance with different clinical condition in *ayurvedic* classics which includes *kaphaavrutt vata*, *kaphaavrutta samanvata*, *kaphaavrutta udanvata* and *dhatwagni mandya* which results to metabolic dysfunction of body .whatever reason may be predomi-

S. No.	Kalka Dravya	Botanical Name
1.	BACHA	Acorus calamus
2.	MADANFALA	Randia spinosa
3.	SARSHAPA	Brassica campestris
4.	SAINDHAVA LAVANA	Rock-salt
5.	DEV DARU	Cedrus deodara
6.	KUSTHA	Saussurea lappa
7.	ELA	Elettaria cardamomum
8.	PIPPLI	Piper longum
9.	BILVA	Aegle marmelos
10.	NAGAR	Zingiber officinales

nance of *kapha*, derangements of *dhatwagni mandya* and the *medas* involvement appears to form core pathological component of manifestation of hypothyroidism.

In the *chikitsa sutra* of *kaphaavruttavata acharya charaka* has mentioned *tikshna niruha basti* to counteract the *avaranjanya samprapti*. In present study a specific type of *tikshna niruha basti* that is *bhadradi asthapana basti*⁽¹¹⁾ which is mentioned in the different clinical condition like *sthoulya*, *agnimandhya*, *galganda* and *kapha vataja* disorder has taken. *Bhadradi Basti Drava* introduced through *Guda Marga*, enters into the *Pakvashaya*. *Pakvashaya* is the *Mula Sthana* of *Vata*. *Ushna*, *Tikshna Guna* of *Bhadradi Basti Dravya* pacifies the aggravated *Vata* at the very basic level in *Pakvashaya*. The *Virya* (73.33%) of *Bhadradi Basti* gets assimilated through transmucosal membrane of large intestine. *Guda* is the root of originator of all *Sira*. So the active principle with *Kapha-Vata Shamak* and *Lekhan* property is transported to all part of the body. *Ushna* and *Tikshna guna* of *Basti* breaks the *Sroto Sanga*, so the *Virya* of *Basti* drugs reached up to cellular level.

Bhadradi Basti administration propagates the *Basti Dravya* to reach up to the seat of *Agni* (*Grahani*). *Bhadradi Basti* was prepared by the combination of *Katu Taila*, *Madhu*, *Gomutra*, *Lavana*, *Yavakshara*, *Ushna* and *Tikshna Gunayukta* drugs. *Taila* has *Anupravana Bhava*. Due to that it passes through illiocecal valve and reaches up to *Grahani*. There it gets absorbed; The *Basti* starts its action from this level by inhibiting the fast absorption. Hence *Bhadradi Basti* pacify the *Samana Vayu* and brings the “*Jatharagni*” to its normal level, and activate the *Vyana Vayu* to break the *Sroto sanga* and Synergise the action of *Bhadradi Basti* at the cellular level. The *Basti dravya* consists of *Katu*, *Tikta*, *Kashaya Rasa*. So these properties potentiate the action of *Bhadradi Basti*.

Basti Chikitsa modulate immune responses by regulating pro-inflammatory cytokines, immunoglobulin and functional properties of T-cells.⁽¹²⁾ There are certain evidences and research articles on the pharmacodynamics of the *Basti Dravya* (enema drugs). The active

principles of the *Basti* drugs may be absorbed by active transport and diffusion because they are mainly water soluble whereas *Sneha Basti* and other nourishing *Basti* contain hypoosmotic solution facilitating absorption into the blood. All the cells/ tissue in the body are inter connected, *Basti* by eliminating morbid content of large intestine will definitely put a positive impact on the other system of body help in maintaining health as whole.

CONCLUSION

On the basis of this case study it was concluded that *bhadradi asthapana Basti* is effective in management of hypothyroidism.. *Basti* is one of the *Chikitsa Upakarma* and have efficacy and potency to counteract the *avaranjanya samprapti* and if applied cautiously and in proper manner it has the potential to counteract the pathogenesis in all aspects. While there is enormous scope for further research but still it proves that with proper diagnosis and proper treatment protocol *Ayurveda* can be extremely beneficial in the management of hypothyroidism.

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Source of Support: Nil

Conflict Of Interest: None Declared

How to cite this URL: Pandey Subhesh Kumar et al: Role Of Basti In The Management Of Hypothyroidism: A Case Study. International Ayurvedic Medical Journal {online} 2019 {cited June, 2019} Available from: http://www.iamj.in/posts/images/upload/1029_1035.pdf