

CRITICAL ANALYSIS OF THE MANAGEMENT OF THYROID DISORDERS THROUGH PANCHAKARMA

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ABSTRACT

The sedentary lifestyle and stress filled contemporary era has led to alterations in the activities of neuro-endocrine systems causing newer health challenges like thyroid disorders. Thyroid disorders are grossly divided into hypothyroidism, hyperthyroidism, thyroid nodules, neoplastic processes and goitre. Treatment of thyroid disease varies based on the disorder. One should know the underlying pathology before planning a treatment whether they are managed with hormone supplement or surgery, thus can be divided into drug and surgical management. Considering this, in these two main thyroid dysfunction i.e., hypothyroidism and hyperthyroidism, *shodana chikitsa* can be adopted. In *ayurveda*, there is no exact mentioning of the thyroid disorders but it can be correlated with the descriptions of *pandu*, *sotha*, *asragdhara*, *sthoulya*, *atisara*, *prameha*, *bhasmaka roga* and *sosha* making it a *vyadhi sankara*. Considering them, the line of treatment remains same based on the analysis of symptomatology of the thyroid disorders. So, there is a need to find out a safe and effective remedy which will not only relieve symptoms but also increase the well-being. One can go for *panchakarma* treatment like *vamana* in hypothyroidism as it helps in treating the *kaphaja vikara* and in hyperthyroidism *virechana* as it subsides *pitta*. Other treatments like *basti*, *nasya* and its mode of action on particular disease make way for better treatment. In an attempt to understand *panchakarma* treatment benefits in managing thyroid disorders, this paper is being written.

Keywords: *Panchakarma*, Hypothyroidism, Hyperthyroidism, *Vamana*, *Virechana*, *Basti*

INTRODUCTION

The sedentary lifestyle and stress filled contemporary era has led to alterations in the activities of neuro-endocrine systems causing newer health challenges like thyroid disorders.

Thyroid disorders are grossly divided into hypothyroidism, hyperthyroidism, thyroid nodules, neoplastic processes and goitre. Thyroid gland is an endocrine gland which is highly

vascular, brownish red in colour and weighs about 12-30gms. It consists of two lobes connected by an isthmus. The arterial blood supply is by superior and inferior thyroid arteries and the venous blood supply is by superior, middle and inferior thyroid veins. The structure of the thyroid gland is made up of follicular cells which are the functional and secretory units of thyroid gland. Thyroxine and tri iodothyronine are the two principle hormones of the thyroid gland secreted by the follicular cells. The ratio of T3 to T4 is 1:5 whereas the potency of T3 to T4 is 10:1 which means T3 is the active form of T4 and T3 is more potent than T4 in tissue. They are necessary for normal growth & maturation, promotes maturation of nervous system, help regulate lipid & CHO metabolism, increases BMR, regulate body temperature and enhance erythropoiesis. The plasma levels of thyroid hormones at normal range for T4 is 5.4- 11.7 micrograms per decilitre, for T3 is 60-180 nanogram per decilitre and for TSH is 0.3- 5.5mili international unit per litre.¹

HYPOTHYROIDISM

Hypothyroidism is a disorder with multiple causes in which the thyroid gland fails to secrete an adequate amount of thyroid hormone. Prevalence is 10 fold more in women than in men. Major symptoms include Cold intolerance, Slow digestion, Weight gain, Fatigue, Thin, coarse hair, Brittle fingernails, Muscle aches, Dizziness, Poor memory, Skin changes, Voice changes. Here normally the TSH levels are high and T3, T4 levels are low. Levothyroxine is the treatment of choice for the routine management of hypothyroidism.²

Considering it as *mandagni, samprapti* is where *kapha vata kara ahara vihara nidana sevana* leading to *kapha pradana tridosha prakopa*, further leads to *jataragni mandya* thus *ama utpatti* causing *dhatwagni mandya* leading to *uttarottara dhatwagnimandya* manifesting various symptoms like *ashrada, agnisada, asrugdara, galaganda, atistula* etc.

HYPOTHYROIDISM AND DEPRESSION HAVE MANY COMMON FEATURES.

Patients with thyroid disease, particularly primary hypothyroidism, frequently exhibit prominent depressive symptoms, and many actually fulfill criteria for major depression. Many patients with depression have demonstrable abnormalities in thyroid function. All patients being considered for antidepressant therapy should first be checked for thyroid function.³

PANCHAKARMA PROCEDURES WHICH CAN BE PERFORMED IN HYPOTHYROIDISM

The Ayurvedic line of management for hypothyroidism is as follows i.e., *agni deepana*, where overall *panchakarma* procedures starting from *purva karma* i.e., *deepana pachana* till *samsarjana krama* help in maintaining *agni*. As *agni deepana* occurs there will be *dhatu gata mala pachana*. Later *srothoshodana* by various *panchakarmas*. Also *kapha vata shamana* as per *dosha* involvement and *Mano harshana* as depression is one of the symptoms in hypothyroidism, *shirobhyanga, virechana, nasya* and *basti* help in balancing emotional disturbances.

VAMANA

The thyroid gland is situated in *kapha-sthana*, easy and nearer route for evacuation of *dosha*, as “*margasamipya*” through oral cavity i.e., *Vamana karma* is the line of treatment in hypothyroidism. As *manda guna* of *kapha* causes slowing of metabolic activities. *Kapha chedana* is the ideal strategy here. Thus increasing *dhatwagni* and removing *malasanga*.

NASYA

The indication of *virechana nasya* as per *vagbhata* goes like this

“*Virechanam shirashoolo (headache) jadya (inactive) syande (conjunctivitis) galamaye (disorders of throat) shopha (oedema) ganda (goitre) krimi (worms) granti (tumor) kusta (skin diseases) apasmara (epilepsy) pinase (rhinorrhea).*”⁴

Nasya is said to be the best in eliminating the *sanchita mala* from *uttamanga* in hypothyroidism. Moreover *nasya* brings about *indriyabala* and *manobala*. One can go for *nasya* with *anu thaila*, *shadbindu taila*, *nirgundi taila* and *gudardrakam*.

TAKRADHARA

Takradhara can be done with *Aragwadadi Gana*, *Varunadi Gana*, *Eladi gana*, *Musta churna*.

BASTI

Basti can help in dealing the pathology at gut thyroid level. Hence, one can go for *anuvāsana basti* with *tailas* like *brihat saindhavadi taila*, *katu taila*, *triphaladi taila* and *niruha basti* with *lekhana* variety of *basti* such as *dwipanchamooladi niruha basti*⁵ etc.

HYPERTHYROIDISM

Hyperthyroidism is a condition in which the thyroid overproduces hormones. Grave’s disease, the most common cause of hyperthyroidism, is more prevalent in women than in men. Major symptoms include Diarrhoea and weight loss, Eye problems, Enlarged thyroid gland, Hair and skin changes, Heat intolerance, Heart palpitations, Clubbing, Menstrual cycle changes, Muscle weakness, Easily bruised. Here normally TSH levels are low and T3, T4 levels are high. Antithyroid medications, such as methimazole (tapazole) and radioactive iodine are a common treatment.⁶ Considering it as *Bhasmaka roga*, the *samprapti of basmaka roga* where *vata pitta kara ahara vihara nidana sevana* leads to *vata pitta prakopa* causing *Theekshnagni* and *Vidagdha-jeerna* leading to *Rasa, Rakta dhatu dusti* causing *Ama* at the level of *vata* and *pitta* manifesting *Bhasmaka roga*.

PANCHAKARMA PROCEDURES WHICH CAN BE ADOPTED IN HYPERTHYROIDISM

Line of treatment in hyperthyroidism i.e., may be done by combating *theekshnagni*, *dhatupaka* and *vata pitta shamana*, lastly with *ojovardaka oushadhi*.

VIRECHANA

Virechana is the most preferred *shodana* in hyperthyroidism. As it corrects *pitta* related pathologies which are seen in hyperthyroidism. It does *vatanulomana*. Periodically administered *virechana* delays the *dhatupaka* thereby preventing further tissue destruction.

NASYA

One can go for *nasya* with *Ksheerabala 101 avarthana*. *Brimhana nasya* is generally done

in hyperthyroidism. *Brimhana nasya* are *vata pitta hara*. Also *nasya* with *dahashamana* property is selected in hyperthyroidism.

SHIRODHARA

One can also go for *bahya karmas* like *shirodhara* in hyperthyroidism with *Ksheerabala thaila*, *Chandanadi thaila*, *Himasagara thaila* *Ksheeradhara - Nyagrodadi*, *Padmakadi gana*

Table 1: Shamana Aushadi⁷

Hypothyroidism	Hyperthyroidism
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<i>Kanchanara guggulu</i>	<i>Shatavari ksheerapaka</i>
<i>Varunadi kwatha</i>	<i>Guduchyadi kashaya</i>
<i>Vaishwanara churna</i>	<i>Jeevaniya ghrita</i>
<i>Panchakola churna</i>	<i>Tiktaka kwatha</i>
<i>Punarnava mandura</i>	<i>Manjistadi kwatha</i>

Table 2: Rasayana⁸

Hypothyroidism	Hyperthyroidism
<i>Bhallataka</i>	<i>Shatavari</i>
<i>Chitraka</i>	<i>Amalaki</i>
<i>Lasuna</i>	<i>Guduchi</i>
<i>Shilajitu</i>	<i>Ashwaganda</i>

Table 3: Pathyapathya

	HYPOTHYROIDISM	HYPERTHYROIDISM
PATHYA	<ul style="list-style-type: none"> Beetroot, Radish, Oat, Banana, Drumstick <i>Sarvangasana, Suryanamaskara Ujjayi pranayama</i> 	<ul style="list-style-type: none"> Protein rich food, dairy products, cabbage, broccoli <i>Sheetali pranayama</i>
APATHYA	<ul style="list-style-type: none"> Goitrogen food- Broccoli, Cauliflower, Cabbage, soya, sweet potato, pearl millet, water containing fluorine, chlorine Smoking 	<ul style="list-style-type: none"> Iodine rich food Caffeine

DISCUSSION

The two main thyroid dysfunction i.e., hypothyroidism and hyperthyroidism, can be treated by *shodana chikitsa*. In *ayurveda*, there is no exact mentioning of the thyroid disorders but it can be correlated with the descriptions of *pandu*, *sotha*, *asragdhara*, *sthoulya*, *atisara*, *prameha*, *bhasmaka roga* and *sosha* making it a *vyadhi sankara*. Considering them the line of treatment remains same based on analysis of symptomatology of thyroid disorders.

Here the Ayurvedic line of management for hypothyroidism is as follows i.e., *agni deepana*, where overall *Panchakarma* procedures starting from *purva karma* i.e., *deepana pachana* till *samsarjana krama* help in maintaining *agni*. As *agni deepana* occurs there

will be *dhatu gata mala pachana*. Later *srothoshodana* by various *panchakarmas*. Also *kapha vata shamana* as per *dosha* involvement and *mano harshana* as depression is one of the symptoms in hypothyroidism, *shirobhyanga*, *virechana*, *nasya* and *basti* help in balancing emotional disturbances.

Vamana karma is considered as the ideal treatment in hypothyroidism. The probable mode of action of *vamana karma* can be told as, TSH has a distinct circadian rhythm; a circadian rhythm is nothing but biological process that displays physical, mental and behavioural changes that follow a roughly 24-hour cycle. And this TSH levels reach a maximum between 2am to 4am. As per classics, *vamana* has to be performed in *kapha kala* i.e., "*purvahna*". By this we can say that

vamana removes the morbid *kapha* from the body which is responsible for hypothyroidism. Thus having an effect on TSH.⁹

And *nasya* by its action i.e., Peripheral olfactory nerve, which acts as chemo receptors are stimulated by *nasya dravya*, which stimulates the olfactory bulb. These further stimulating higher centres of hypothalamus and pituitary, thus showing the effect on endocrine system secreting the normal secretions of thyroid hormones.

The effect of *shirodhara* on hormone secretion can be postulated, considering the effect on hypothalamus as hypothalamus is the main controller of endocrine secretions. Here the hypothalamic neurons which secrete the regulatory hormones in turn secretes the stimulating hormones like thyroid hormones.¹⁰

Concept of thyroid-gut connection here gives an idea regarding how *basti* acts on thyroid functions. "Hippocrates says, you cannot have a healthy gut without a healthy thyroid and cannot have a healthy thyroid without a healthy gut." Our digestive tract hosts an array of bacteria that contribute to our health in a number of ways. One way is in the production of active thyroid hormones. A whopping 20 percent of thyroid function depends on a sufficient supply of healthy gut bacteria to convert T4 to T3. When diets are poor and digestion falters, dysbiosis, an overabundance of bad bacteria, crowds out the beneficial bacteria, thus hampering the production of active thyroid hormone.¹¹ *Basti* combats this by its action i.e., due to its *virya*, *basti* spreads in the entire body.¹² Enteric nervous system which is the second brain works in synergism with central nervous system.¹³ Hit and run module i.e.,

though the *niruha basti* won't stay for long in the body, the effect is longer just like proton pump inhibitors.¹⁴ The latest concept of system biology makes this clearer how *basti* can act on the various systems. Thus *basti* may act over the receptors of the ENS to stimulate the CNS further stimulating the HPT axis causing normal secretion of thyroid hormones.

Virechana is the most preferred *shodana* in hyperthyroidism. As it corrects *pitta* related pathologies which are seen in hyperthyroidism. As *virechana dravya* possesses *ushna*, *tikshna*, *sukshma*, *vyavayi* and *vikasi* properties, by virtue of its *virya* the *virechana dravya* reaches *hridaya*. *Hridaya* here can be considered as nerve plexus in brain where it may help in balancing the hypo- thalamo pituitary thyroid axis.¹⁵

CONCLUSION

"Prevention is better than cure" as hypothyroidism is a lifestyle disorder – By following healthy regimens like *dinacharya*, *rutucharya* the disease can be prevented. The tertiary prevention is used in preventing further progress of thyroid disorders i.e., by proper *ruthu shodana* and *avasthanusara chikitsa*. Knowledge of *agni*, *dosha*, *dhatu*, *srotas* etc involved in causation of thyroid disorders, makes an efficient plan on effective treatment. Thyroid disorders can be correlated for multiple diseases thus can be taken as *vyadi sankara* or a syndrome where treatment planned focuses on removing the disease from particular *kha vai gunya*. *Panchakarma* explained here may provide better care and improves the quality of life. *Panchakarma* alone does not act as a whole treatment, along with *shamana aushadi*

followed by *rasayana* helps in removing the morbidity entirely.

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