

THE EFFECT OF GOMUTRA BHAVIT JALKUMBHI BHASMA AND KPG VATI WITH UJJAYI PRANAYAMA ON HYPOTHYROIDISM - REVIEW

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ABSTRACT

Hypothyroidism is the second most prevailing disorder in daily OPDs. The majority of the concerns that will arise in the future as a result of changing lifestyles and stressful environments can be addressed by the science of ayurveda. The Symptoms of Hypothyroidism resembles with the *Galganda* as describe in Ayurvedic texts. In *Galganda* there is *Dhatvagnimandya and abnormalities of kapha and vata doshas* as well as *Rasavaha, Raktavaha, Medovaha, Sukravaha and Manovaha srotas*. The Practice of *Pranayama* plays an important role in the management of hypothyroidism. In this concern we have choosen *Ujjayi pranayama*, which is considered as supportive and complimentary therapy in conjunction with medical therapy for the treatment of hypothyroidism. The current study will also be focused on *ujjayi pranayama* which normalizes the *manovaha srotho- dhusti*. So, keeping all the above facts in the mind there is need of clinical trial to improve

the previous study, we have choosen *Gomutra bhavit Jalkumbhi bhasma, KPG Vati (Kanchnar, Pippli, Guggulu Vati)* and *Ujjayi Pranayama* for the management of hypothyroidism.

KEYWORDS: Primary Hypothyroidism, TSH, Agni, *Ujjayi Pranayama, Dhatvagnimandya, Galganda.*

INTRODUCTION

Hypothyroidism is a common endocrine disorder resulting from deficiency of thyroid hormone or, more rarely, from their impaired activity at tissue level. About 42 million people suffer from Thyroid disorders in India where women are 6 times more prone than men. Prevalence is 1.9% in women and it increases with age.^[1,2] It may be a primary (Thyroid failure), Secondary (to Pituitary TSH deficit) or tertiary (due to hypothalamic deficiency of TRH) or there may be abnormality of the thyroxine (T4) receptor in the cell, including peripheral resistance to the action of thyroid hormones.^[3] TSH from pituitary gland (secondary or tertiary hypothyroidism). The patient presentation may vary from asymptomatic to rarely coma with multisystem organ failure (Myxedema coma). The most common cause in the United States is autoimmune thyroid disease (Hashimoto thyroiditis). Hypothyroidism is characterized by generalized reduction in metabolic function that most often manifests as a slowing of physical and mental activity. Subclinical hypothyroidism referred to as mild hypothyroid, is defined as normal serum free thyroxine (T4) level with slightly high serum TSH concentration. The clinical symptoms of hypothyroidism are dependent on the patient age/sex and the presence of other disease, and the rate at which hypothyroidism develops. According to modern scientific literature metabolism depends on the thyroid hormone. Hypothyroidism is a condition caused by either a lack of thyroid hormone or tissues being resistant to thyroid hormone in relation to metabolic requirement. In Ayurvedic Literature there is no description of hypothyroidism as such but a description of disease *Galganda* has been described in *Charak Samhita* (ch.su. 18/21). The analysis of the symptomatology of hypothyroidism in the light of Ayurvedic principles showed that the pathogenesis and manifestations of hypothyroidism occurs due to dysfunction of *Agni*. Hypothyroidism according to principles of Ayurveda, it is seen that due to the hypofunctioning of the *Jatharagni* which affects the *Dhatvagni* bringing out the pathological sequences & ultimately developing the *Ama lakshanas*. *Jalkumbhi bhasma* has a *Tikta*, *Madhur ras* & *laghu ruksha gunna*. It is *tridoshashamak*, while *Gomutra* possess *katu rasa* along with *Tikshna*, *ushna*, *laghu gunna*. It is *vata-pittasamak*, so all these properties can work very well in breaking down the pathogenicity of the Disease.^[4,5] Synergistic action of all ingredients, of *KPG vati* are *Deepana aampachan*, *rotoshodhak*, *shulprashamana*, antioxidant and immunomodulatory also reduced the symptoms of Hypothyroidism.

Pranayama plays an important role in the management of hypothyroidism. *Ujjayi pranayama* was conducted that *Pranayama* for hypothyroidism is one of the most recommended

breathing exercises to relieve the symptoms of the condition and *Yoga* is valuable in helping the hypothyroidism patients to manage their hypothyroid related symptoms. It mentioned in the *Yoga text Hatha Yoga Pradeepika* and in the *Gheranda Samhita*.^[6] *Ujjayi* (victory or oceanic breath) is however, the most effective for thyroid problems as it relaxes and stimulates the *vishudha chakra* and when done with *jalandhara bandha*, it squeezes out toxins and brings in powerful healing *prana* to the thyroid.

DRUG REVIEW

The Pharmacological properties of following drugs

Name of the drug	Jalkumbhi	Kanchnar	Gomutra	Pippli	Guggulu
Latin name	<i>Pistia stratiotes</i>	<i>Bauhinia variegata</i>		<i>Piper longum</i>	<i>Commiphora Mukul</i>
Part used	Panchang	Twak		Fruit	Niryas
Rasa	Tikta Madhura	Kashaya	Katu, Lavan	Katu	Tikta, Katu, Madhura, Kashaya
Guna	Laghu Ruksha	Laghu Ruksha	Usna, Tichhna, Aruksha	Laghu, Snigdha, Tikshna	Laghu, Rukshya, Tikshna, Sukshma
Veerya	Sheeta	Sheeta		Anushnasheeta	Ushna
Vipaka	Madhur	Katu		Madura	Katu
Chemical contents	Potassium chloride & sulphate Palmitic acids, Anthocyanin-cyanin-3, Luteolin-7- glycosid	Tannin Glycoside	Vit A,B,C,D,E And mineral etc	Alkaloid like Pipernine and Piplartine, Piplasterol, Steroid, Glucoside.	Volatile oil, Raal, Gond, Oleorasin etc..
Special action	Tridosh Shamaka	Kapha-pitta Shamaka	Kaphashamaka, Vataanulomak	Kapha-Vata Shamak	Tridosh Shamak, Medohar.

AIM AND OBJECTIVES

- To assess the probable mode of action of ayurvedic drug along with *ujjayi pranayama* combination in the management of the hypothyroidism.
- To assess the effectiveness of trial drug in the cases of hypothyroidism.
- To Normalize the levels of TSH in the mild cases.
- To assess the effect of the trail drug on resistant cases of levothyroxine.
- To gradually replace the hormone (levothyroxine) with the trail drug.
- The aim of this study will assess the effect of *ujjayi pranayama* Hypothyroidism.

MATERIALS AND METHOD

Jalkumbhi Bhasma – 500 mg BD.

KPG Vati - 250 mg 2BD.

Ujjayi Pranayama - 15 min at morning (6-8 AM) for 3 months.

Selection of Cases

For the purpose of clinical trial, the patient of Hypothyroidism was selected randomly from OPD and IPD of State Ayurvedic College and Hospital, Lucknow and referred cases of other hospital.

Inclusion Criteria

- Under the age of 20-60 years.
- Both genders male and female.
- Patients who were freshly diagnosed or mild cases of Hypothyroidism with increased TSH levels (TSH level between 4.5-12.5 μ IU/ml)
- Patients who were ready to switch over to Ayurvedic medicine and have signed the consent form.
- 4 out of 6 major symptoms and minor symptoms may or may not be present.
- Patients with hypothyroidism who were interested in involving themselves in pranayama practice with drugs treatment.

Exclusion Criteria

- Patients below 20 years and above 60 years of age.
- Patients who had under gone any type of thyroid surgery and recent abdominal or spinal surgery.
- TSH level above 12.5 μ IU/ml.
- Pts. whose symptoms were worsely aggravated after leaving the modern drug Levo-thyroxine (in the washout period).
- Hyperthyroidism, Neoplasia, toxic goitre was excluded.
- Patients suffering from uncontrolled systemic diseases like cardiac problems, diabetes, carcinomas etc.
- Patients suffering from congenital hypothyroidism.
- Obese female with pregnancy or lactation and children

DISCUSSION

Hypothyroidism is one of the earliest endocrine disorders after diabetes. The reason of Hypothyroidism may be starts with improper diet (heavy, cold, sweet and saturated fat

containing food items) and sedentary lifestyle (lack of physical activity, sleeping after meal sleeping during day time) which is now a days very common. It leads to aggravation of *kapha*. The increased amount of *kapha* impairs the *Jatharagni* with the formation of *aamdosha*. As *dhatvagni* depends on *Jatharagni bala*, so impairment of *dhatvagni* takes place in due course of time. The effect of hypothyroidism is alteration in metabolic activity which, according to Ayurveda, is vitiation of *Dhatvagni*. This *dhatvagni* vitiation causes improper formation of *sapta dhatu* starting from *rasa* to *shukra*. It leads to improper nourishment to the body leading to symptoms of hypothyroidism along with swelling in neck described as *Galganda* in Ayurvedic texts.

Hypothyroidism is a progressive disorder of thyroid gland due to an insufficient amount of thyroid hormone. The thyroid is an important part of human endocrine system which are responsible for regulation of oxygen use basal metabolic rate, cellular, metabolism and growth and development. The thyroid gland secretes thyroxine and tri iodothyroxine T3 which are needed for proper growth and development and which are primarily responsible for determining the basal metabolic rate. The thyroid hormones are transported through the blood and act at the cellular level through the activation of gene, thyroid hormones stimulate protein synthesis, promotion maturation of nervous system and increase the rate of cell respiration in tissue, thus elevating the BMR. *Pranayama* plays an important role in the management of hypothyroidism. *Ujjayi pranayama* is considered as supportive and complimentary therapy in conjunction with medical therapy for the treatment of hypothyroidism. *Ujjayi pranayama* is being widely used as a yoga therapy for various disease in yogic system of medicine to the best of our knowledge there is lack of scientific evidence in reporting the effect of *Ujjayi pranayama* on hypothyroidism. TSH level reduced significantly after the practice of *Ujjayi pranayama* for a period of 90 days.^[7]

CONCLUSION

Hypothyroidism can be considered as condition which results due to *Agni Dusthi*. *Kapha Vata Dosha Vruddhi* and *Pitta Kshaya* result due to *Dhatvagnimandya* especially *Ras* and *Medho Dhatvagni Mandhya*. The combined effect of trial drugs like *Gomutra Bhavit Jalkumbhi bhasma* and *KPG vati* along with *Ujjayi Pranyama* are given in better relief in the symptoms of Hypothyroidism W.S.R. to *Galganda*.

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