

A Pilot Study to Assess the Efficacy of Kanchnaradi Kashaya in The Management of Hypothyroidism W.S.R. To Kaphavrutta Vata

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Abstract:

Hypothyroidism is a condition characterized by abnormally low thyroid hormone production. Subclinical hypothyroidism is one of the most common endocrine disorders in India affecting one in ten adults. Major portion of hypothyroidism remain undetected. Various treatment protocols are applied in this disease with portion success. In present clinical study, 20 patients of clinically proven hypothyroidism were treated with kanchnaradi kashayam to evaluate its efficacy. The ingredients of Kanchnaradi Kashaya are Kanchnar (*Bauhinia variegata*), Varun (*Crateva religiosa*) Shigru (*Moringa oleifera*), Shunthi (*Zingiber officinale*) Shaindhav and Madhu.

Ayurveda parameters (Nidan and Lakshan) and modern symptoms of hypothyroidism were used as subjective parameters, and investigations were used as objective parameters to assess the efficacy of the drug. Analysis was done and results were calculated statistically using P test. Results obtained are encouraging and indicates the efficacy of *Kanchnaradi Kashaya* (*Anubhoot yoga*) in the management of hypothyroidism exploring many aspects of this clinical entity.

Keywords: Hypothyroidism, *Anukta vyadhi*, *Aavrana*, *Kaphavrutta Vata*, *Kanchnaradi Kashaya*

Introduction:

Decreased secretion of thyroid hormone is called hypothyroidism. Hypothyroidism is a common condition, where the thyroid glands does not produce and releases enough thyroid hormone into your bloodstream. This will slow down metabolism and this condition can be considered as underactive thyroid. The prevalence of hypothyroidism in the developed world is about 4-5%. ^[1,2] 42 million people are suffering from thyroid disorder. Hypothyroidisms are 2nd most common disorder after diabetes mellitus. India has a high prevalence of hypothyroidism, which is about 10%. It is much more common in females than males.^[3] It occurs about five times more often in female than in male.

Thyroid disorder can be caused by stress, poor nutrition, sedentary lifestyle, and genetics leading to an iodine deficiency. It affects the body physiology as well as psychology.

There are many diseases which doesn't mentioned directly in Ayurveda texts, and that diseases are called as *Anuktavikar*. Subclinical hypo-thyroid is one of such disease. Though there is lack of direct description of such disease, but its line of treatment described very well.

In *Charak Samhitas* there is detailed description about *Vata Vyadhi*^[4], i.e. diseases caused due to vikrut vata dosha. In that reference, *Aavrana* are described. Under this topic signs and symptoms of *Kaphavrutta Vata*^[5] are explained. These signs and symptoms can be correlated with that of Hypothyroidism.

If we try to get a deeper insight into pathogenesis of hypothyroidism as per the theory of *Ayurveda*, we find that it is basically caused due to *Kapha* and *Vata Dosha*, dysfunction of *Jathragni* which in turn effect the *Dhatavagni* and eventually the disease sequence unfolds and the disease condition develop.

Aims and objective –

1. To asses of clinical efficacy of *Kanchnaradi Kashaya* in the management of hypothyroidism
2. A meta analysis and systemic review of the published data looking at the the efficacy and safety of *ayurveda* interventions in the management of hypothyroidism.

Material and method –

Patients attending the OPD of *Kayachikitsa* department fulfilling the criteria for selection were incorporated into the study irrespective of caste religion etc. patient's detailed history regarding present illness, past illness, family history, and clinical finding pertaining to *Dosha*, *Dushya*, *Agni*, *Strotus* etc. A special preformed were prepared, total 20 patient were registered for this study.

All the patients were examined by thyroid profile to asses' hypothyroidism.

Study design – Open clinical randomized trial

Criteria for selection of cases –

A) Inclusion criteria –

- Newly diagnosed case of hypothyroidism.
- Already diagnosed hypothyroidism case (undertreated)
- Patient's age should be above 16 years and below 60years.
- Elevated level of Serum TSH (more than 4.31 μ IU/ml. normal value 0.38 to 4.31 μ IU/ml)
- Low serum T3 (less than 0.79 ng/ml, normal value 0.79 to 1.58 ng/ml)
- Low serum T4 (less than 4.9 μ g/dl, normal value 4.9 to 11 μ g/dl) However, the cases of which T3 and T4 levels are within normal range and TSH level is high will also include.

B) Exclusion criteria –

- Age below 16 and above 60 years
- Drug induced Hypothyroidism ,Congenital hypothyroidism
- All complicated cases of Hypothyroidism Goiter, myxedema, thyroid cancer etc. and associated with other endocrine disorders
- Patients having chronic systemic illness like Tuberculosis severe mental illness, cardiac disorder, diabetes mellitus, CNS disorder e.g. encephalopathy
- Pregnant women and Lactating Mother.

- Patients having undergone thyroid surgery

C) **Parameter of diagnosis and assessment of results-** pt were selected on the bases of serum TSH.

D) **Criteria for Diagnosis/ Subjective criteria for assessment –**

The diagnosis of the disease will be mainly based on the signs and symptoms mentioned in texts of modern and thyroid profile. Following clinical signs and symptoms will be evaluated and considered. However, the main diagnostic tool adopted will be thyroid profile.

- Puffiness of face and eye lids
- Coarse dry skin/hair
- Hair fall
- Cold intolerance
- Hoarseness of voice
- Constipation
- Muscle cramp
- Loss of appetite
- Generalized ache/pain
- Tiredness
- Menstrual irregularities
- Sleepiness
- Weight gain

SELECTION OF DRUG:

From the *Ayurvedic* point of view *Vata* and *Kapha Dosha* and *Agni* plays a major role in pathogenesis of hypothyroidism as most of the symptoms present in it are due to vitiation of *Vata* and *Kapha Dosha* and dysfunction of *Agni*. Taking all this into consideration the *Kanchnaradi kashaya* has been selected for the present study.

In this *kashaya* we added 3 drugs in equal quantity that is *kanchnar twak*, *varuntwak* and *shigrutwak*. *Kanchnarvarunkashaya* are already mention in ayurvedic classics we are added *shigru* on the bases of effectiveness.

Kanchnaradi Kashaya has *Laghu*, *Ruksha*, *Deepan*, *Pachan*, *Shothhar*, properties. Due to this property it breaks the *Samprapti* of *Jathragnimandhya* that is hypothyroidism. It can do very well in certain *Vata-Kapha* condition like hypothyroidism.

Due to wide spectrum of the disease and high prevalence in the society, the current issue was adopted for study and its management by means of *Ayurvedic* principles significant improvement was observed on subjective and objective parameters.

Table No. 1 - PHARMACODYNAMICS OF KANchnARADI KASHAYA:^[6]

<i>DRUG</i>	<i>BOTENICAL NAME</i>	<i>FAMILY</i>	<i>RAS</i>	<i>GUN</i>	<i>VIRYA</i>	<i>VIPAK</i>	<i>DOSH KARMA</i>	<i>PA RT use d</i>	<i>RAT IO</i>

<i>Kanchnar</i>	<i>Bauhinia variegata</i>	<i>Ligumina ceae</i>	<i>Kashay</i>	<i>Laghuruksha</i>	<i>Sheet</i>	<i>Kat</i>	<i>Kaphpittas hamak</i>	<i>Tw</i>	<i>1</i>
<i>u</i>	<i>Moringa oleifera</i>	<i>Moringaceae</i>	<i>KatuTik</i>	<i>Laghuruksha tikshna</i>	<i>Ush</i>	<i>katu</i>	<i>kaphvaatsh amak</i>	<i>Tw</i>	<i>1</i>
<i>Varun</i>	<i>Cratevan urvala</i>	<i>Capparidaceae</i>	<i>TiktaKashay</i>	<i>LaghuRuksha</i>	<i>Ush</i>	<i>Kat</i>	<i>Kaphvaat Shamak</i>	<i>Tw</i>	<i>1</i>

Treatment/ Therapeutic regime -

Kanchnaradi kashaya

Dose – 30 ml mix with equal quantity of water

Anupan – Madhu (Prakshep dravya Shunthi)

Aushadha kaal – after meal

Follow up – every 15 day

All patients were instructed to follow dietary restriction performed yoga and mild exercise and caloric expenditure by physical activity. The patients were called for regular follow up at an interval of 15 days to evaluate their clinical status effect of the treatment.

RESULT AND DISCUSSION -

During the study the patients were first screened for their thyroid profile and the result recorded. After the treatment the thyroid profile of the patients was assessed again. It was observed that *Kanchnaradi Kashaya* was given as supplement with diet and *Yoga*. In the result of which their TSH level came down to within normal limits, along with associated symptoms of hypothyroidism like weight gain, constipation, swelling, indigestion, lethargy, was also relieved to a great extent the statistical analysis of the data to study the efficacy of treatment is below.

Table No.2

N	SD	SE	T Value	P Value
20	38.72	8.660	3.350	< 0.01

The statistical analysis of the data in trial group with *kanchnaradi kashayam* showed t value at 3.35 with level of significance at 1% ($P < 0.01$) signifying that the efficacy of treatment in the trial group is highly significant.

Kanchnaradi Kashaya was found to be effective in normalized TSH value and in reducing symptoms associated with subclinical hypothyroidism. Clinical feature like swelling in extremities, Puffiness on face, tiredness, muscles ache, constipation etc were significantly reduced after the treatment. The drug shows significant result in obesity also the quality of life of all patients in this study was improved. This proves the effectiveness of the drug in this condition making it a miraculous drug.

CONCLUSION -

Hypothyroidism refers to the common pathologically condition of thyroid hormone deficiency. If uncontrolled, it can lead to serious adverse health effect and ultimately death.

After analyzing this study, it was concluded that *Kanchnaradi Kashayam* administered orally, have definite role in the treatment of hypothyroidism, to provide better and earlier relief to the patients of hypothyroidism.

Present study revealed that various *Ayurvedic Shaman* treatment modalities are found to be significantly effective in hypothyroidism. These drugs are safe as no adverse effects were reported in any of these studies.

It is important to avoid aggravating factors like stress and include compatible diet and exercises in addition to the drug.

At the end we can say that *ayurvedic* treatment regimen can provide promising results in the management of hypothyroidism. It followed as per the prescribed guidelines of *Ayurveda*.

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