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A clinical study to evaluate the efficacy of Kanchnara Twak Kwatha with Shunthi Churna and Nimba Taila Nasya in Hypothyroidism

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ABSTRACT

Context: Hypothyroidism is a clinical syndrome resulting from deficiency of thyroid hormones due to their insufficient synthesis which is turn result in generalized slowing down of metabolic process characterized by broad clinical spectrum ranging from an asymptomatic or subclinical condition to fully manifested clinical condition. It is more common in females than males with middle age women more effected. Materials and Methods: Sixty eligible hypothyroid patients with serum thyroid-stimulating hormone >4.5 μ IU/ml and serum T₃ and T₄ lower than their respective normal range were selected and treated with Kanchnar Twak Kwath with Shunthi Churna and Nimb Taila Nasya for 45 days. Patients were advised to discontinue any medicine they might be taking for the management of hypothyroidism to assess the unbiased effect of therapies. Results: Significant improvement was observed on subjective parameters, and objective parameters. Of the 60 enrolled patients, In group B maximum improvement 62.07%, moderate improvement 20.69%, mild improvement 13.79%, no improvement 3.45%. But in group A maximum improvement 7.14%, moderate improvement 28.57%, mild improvement 42.86%, no improvement 21.43%. after this trial maximum patient had withdrawn their hormone replacement therapy. Conclusion: Kanchnar Twak Kwath with Shunthi Churna and Nimba Taila Nasya are effective in the management of hypothyroidism.

Key words: Hypothyroidism, Kanchnar Twak Kwath, Nimb Tail Nasya, Shunthi Churna

INTRODUCTION

Hypothyroidism results in slowing of metabolic process and energy expenditure. It results in a many of clinical signs and symptoms. The Kapha symptoms like lethargy, sleepiness, weight gain, decreased appetite, cold intolerance, fullness in the throat, hoarseness of

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voice, etc. are produced. The Vata symptoms like fatigue, loss of energy, dry skin, hair loss, muscle pain, joint pain, blurred vision, weakness in the extremities, disfigurement, forgetfulness, impaired mental memory, constipation, menstrual disturbances, impaired fertility, decreased perspiration.

These all symptoms are produced due to increment of Kapha-Vata mainly. Vitiation of Doshas also depends on vitiations of Agni that is why, Acharya Vagbhatta has said that ^[1] Pathophysiology of all diseases lies in the concept of Agni, as Agni is said to be the Prana(life) of the living body. Also, body is made up of Dosha, Dhatu, and Mala Nourishment of each of these solely depends on balanced Agni of each Dhatu.[2]

As said by Acharya Charak:^[3]Srotas vitiation also depends on Aqni. So, it is clear that in hypothyroidism there is abnormality of Aqni with abnormality of Kapha

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and Vata Doshas as well as Rasavaha, Raktavaha, Medovaha, Sukravaha and Manovaha Srotas.

The main treatment of hypothyroidism in modern medicine is hormone replacement therapy.^[4] But hormone (levothyroxine) has to be taken life long and has certain side effects on long term use.

It all starts with improper diet (heavy, cold, sweet and saturated fat containing food items) and sedentary lifestyle (lack of physical activity, sleeping after meals, sleeping during day time) which is now-a-day very common. It leads to aggravation of Kapha Doshas. Due to increased amount of Kapha impairs the Jatharagni so, formation of Aamdosha occur. As Dhatvagni depends on Jatharagni Bala, so impairment of Dhatvagni occur. According to Ayurveda, due to vitiation of Dhatvagni can be compared with effect of hypothyroidism i.e., alteration in metabolic activity. So, 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 disease with *Kapha Vata* predominance and *Pittakshaya*. In hypothyroidism *Jatharagni Mandhya* leads to *Dhatvagni Mandhya*. So therefore, we have selected a drug which is *Kapha Vata Shamak* property. So, we have used *Kanchanar Twak Kwath* with *Shunthi Churna* and *Nimb Taila Nasya* for treatment of hypothyroidism. Further hypothyroidism is a disease which may also be due to auto immunity.

Kanchnar which has Kashaya in Rasa, Laghu, Ruksha Guna, Kapha-Pitta Shamak, and Gandamalanaashan property.^[5] Shunthi which has Katu Rasa, Laghu Snigdh Guna, and Kapha Vata Shaamak.^[6] Nimba has Tikta Kashaya Rasa, Kapha Pitta Shaamak and Raktashodhan property.^[7]

AIMS AND OBJECTIVE

- 1. To assess the efficacy of the trial drugs in the cases of hypothyroidism.
- 2. To normalize the level of T.S.H. and other symptoms in the cases.

- 3. To gradually decrease the hormone (levothyroxine) with the trial drugs.
- To find out the easily available, economical safe and effective remedy for the treatment of Hypothyroidism.

MATERIALS AND METHODS

Plan of the study

The study was carried out after getting clearance from IEC and CTRI registration.

Institutional ethics clearance number: RAC-IEC-19-M.D.-04, Dated 25.01.2021

CTRI registration number: CTRI/2021/04/033150 [Registered on 27.04.2021]

Trial Registered prospectively

Type of trial: Interventional

Randomized Sampling: Computer generated randomization Method

Nature of Study design: Randomized, Parallel Group Trial

Type of Study: Interventional Open Randomized clinical study.

Period of Study: Total duration of clinical trial was 45 days with fortnightly follow-up for symptoms and monthly follow-up for thyroid function test.

Sample Size: Total 60 patients of hypothyroidism were registered for this study. Among these 3 patients were drop out.

Grouping

Minimum 60 patients of hypothyroidism from OPD and IPD of Govt. P.G. Ayurveda College and Hospital, Varanasi were selected and treated with trial drugs. Patients who are using the modern drug Levothyroxine was given the trial *Ayurveda* drug after wash out period of at least 15 days. There were two groups.

Group A: 30 Patients were registered in Group-A, out of which 2 patients drop out. Remaining 28 patients were treated with *Kanchnar Twak Kwath* 50 ml with 1gm *Shunthi Churna* two times in a day before meal.

Group B: 30 patients were registered in Group-B, out of which 1 patient drop out, remaining 29 patients were treated with *Kanchnar Twak Kwath* 50 ml with 1 gm *Shunthi Churna* two times in a day before meal and *Nimb Taila Nasya* 2 drops in each nostril.

Selection of patients

A total of 60 patients suffering from hypothyroidism were selected from outdoor patient department and indoor patient department of Panchakarma, Govt. Ayurveda college and Hospital, Varanasi, irrespective of their sex, religion, caste, occupation etc.

Ethical clearance was obtained from the Institutional ethics clearance No. RAC-IEC-19-M.D.-04, dated 25.01.2021. This study is registered in Clinical Trial Registry of India with registration no. CTRI/2021/04/033150. Informed written consent in language suitable to the patients was obtained from all enrolled participants.

Inclusion criteria

- Age between 20-60 years.
- Patients who are freshly diagnosed case of hypothyroidism with increased T.S.H. levels
- T.S.H. level >4.5 μIU/ml.
- Total serum T4 level less than normal value (total serum T4=4.5-12.5 μg/dl)
- Total serum T3 level less than normal value (total serum T3=80-220 ng/dl)
- Patients having clinical features of Hypothyroidism;
 - a) Puffiness of the face and eyelids
 - b) Peripheral edema
 - c) Dry/coarse skin
 - d) Breathlessness
 - e) Constipation
 - f) Weakness
 - g) Lethargy

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- h) Fatigue
- i) Muscle ache
- j) Duration of menstrual blood(female)
- k) Interval between two cycles(female)
- I) Hair fall
- Patients who are ready to switch over to Ayurvedic medicine and have signed the consent form.

Exclusion criteria

- Patients below 20 years and above 60 years of age.
- If patients undergone any type of thyroid surgery.
- Patients whose symptoms are aggravated after leaving the modern drug levothyroxine (for washout period)
- Patients suffering from systemic diseases like cardiac problems, diabetes HTN and carcinoma etc.
- Congenital hypothyroidism and secondary hypothyroidism
- Pregnant women, hyperthyroidism, neoplasia, toxic goitre is excluded.

Laboratory Investigation

Following laboratory investigations were performed for proper diagnosis and to rule out major pathological conditions.

- Biochemical parameters like Thyroid profile (Serum T₃, Serum T₄ and TSH) lipid profile, liver function test, RBS, Serum creatinine, Blood urea.
- Haematological parameters like Hb%, TLC, DLC, ESR.

Drugs and dosage

Kanchnar Twak Kwath 50 ml with 1 gm *Shunthi churna* two times in a day before meal.^[8]

Nimb Taila Nasya^[9] 2 drops in each nostril.

The trial drugs were procured from Pharmacy, Sampoornanad Sanskrit University.

Preparation method of trial drugs

Preparation of *Kanchnar Twak Kwath* with *Shunthi Churna*: Patients were advised to boil coarse powder of *Kanchnar Twak Kwath* in eight parts of water and reduce it up to 50 ml and mixed with 1 gm *Shunthi Churna* before meal.

Nimb Tail Nasya - 2 drops in each nostril.

The trial drugs were administered for 45 days.

Follow-up study: After completion of the therapy, patients were followed for 15 days.

Subjective and Objective criteria

Percentage of improvement in each parameter was calculated. Paired 't' test was applied to the data to analyse the effect of therapy on subjective and objective parameters. The results were interpreted at P < 0.05, P < 0.01 and P < 0.001 significance levels.

OBSERVATION AND RESULTS

Out of the 60 registered patients, maximum patients belonged to age group of 31-40 years and 41-50 years (29.82%) and majority of the patients were female 89.47%. The study showed that middle economical group was affected mostly 59.65%. Maximum no. of patients 52.63% were House-wives followed by other 24.56%, Private 22.81%, about 70.18% of the patients were married, *Mandagni* was observed in 59.65% of the patients, 59.65% of the patients were *Krura Kostha*, Maximum no. of patient 70.18% were suffering from constipation habit, maximum no. of patient 57.89% were of *Vata-Kapha Prakrati*.

Effect of therapy on presenting complaints of hypothyroidism

The results were significant in all the signs and symptoms of hypothyroidism. Highly significant improvement (P < 0.001) was observed in puffiness of the face and eyelid, oedema, dry/coarse skin, constipation, weakness, fatigue and muscle ache, duration of menstrual blood, interval between two cycles and hair fall.

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Table 1: Showing the effect of symptoms in Group A.

Paired S	amp	les S	tatisti	cs			Paired Differences					
Group (#	¥)	N	M ea n	St d. D ev	S. E.	% Cha nge	t	d f	p- val ue	Res ult		
Puffine ss of the face	B T	2 8	1.9 3	0. 7 2	0. 1 4	37. 04	6. 3 0	2 7	<0. 001	HS		
and eyelid Edema	A T	2 8	1.2 1	0. 6 3	0. 1 2							
Edema	B T	2 8	1.8 6	0. 7 6	0. 1 4	25. 00	4. 2 6	2 7	<0. 001	HS		
	A T	2 8	1.3 9	0. 5 0	0. 0 9	-						
Dry coarse skin	B T	2 8	2.3 2	0. 6 1	0. 1 2	20. 00	4. 8 4	2 7	<0. 001	HS		
	A T	2 8	1.8 6	0. 5 9	0. 1 1							
Consti pation	В Т	2 8	2.3 6	0. 6 2	0. 1 2	22. 73	4. 9 2	2 7	<0. 001	HS		
	A T	2 8	1.8 2	0. 7 2	0. 1 4							
Weakn ess	B T	2 8	2.3 6	0. 6 2	0. 1 2	22. 73	5. 5 8	2 7	<0. 001	HS		
	A T	2 8	1.8 2	0. 6 1	0. 1 2							
Lethar gy	B T	2 8	2.3 6	0. 6 2	0. 1 2	24. 24	4. 7 7	2 7	<0. 001	HS		

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	A T	2 8	1.7 9	0. 6 3	0. 1 2					
Fatigu e	B T	2 8	2.2 9	0. 6 6	0. 1 2	29. 69	4. 7 7	2 7	<0. 001	HS
	A T	2 8	1.6 1	0. 5 7	0. 1 1					



Table 2: Showing the effect of symptoms in Group A.

Paired	Samı	ples	Statist	ics			Paired Differences					
Group (Group (A)		Me an	St d. D ev	S. E.	% Cha nge	t	d f	p- val ue	Res ult		
Muscl e ache	B T	2 8	2.3 6	0. 62	0. 12	24.2 4	5. 28	2 7	<0. 001	HS		
actie	A T	2 8	1.7 9	0. 57	0. 11							
Durat ion of mens	B T	2 8	1.7 8	0. 67	0. 14	51.2 2	5. 97	2 7	<0. 001	HS		
trual blood	A T	2 8	0.8 7	0. 63	0. 13							
Interv al Bw	B T	2 8	2.3 9	0. 66	0. 14	43.6 4	6. 52	2 7	<0. 001	HS		

2 cycle	A T	2 8	1.3 5	0. 65	0. 13					
Hair fall	B T	2 8	1.7 5	0. 52	0. 10	32.6 5	5. 28	2 7	<0. 001	HS
	A T	2 8	1.1 8	0. 55	0. 10					



Table 3: Showing the effect of symptoms in Group B.

Paired S	amp	les S	tatisti	cs			Paire	ed Di	ifferen	ces
Group (f	3)	N	M ea n	St d. D ev	S. E.	% Cha nge	t	d f	p- val ue	Re sul t
Puffin ess of the face	B T	2 9	2.0 7	0. 7 0	0. 1 3	80. 00	13 .3 1	2 8	<0. 001	HS
and eyelid	A T	2 9	0.4 1	0. 5 0	0. 0 9					
Edema	B T	2 9	2.2 8	0. 5 9	0. 1 1	80. 30	16 .3 6	2 8	<0. 001	HS
	A T	2 9	0.4 5	0. 5 1	0. 0 9					
Dry coarse skin	B T	2 9	2.1 4	0. 6 9	0. 1 3	83. 87	19 .6 5	2 8	<0. 001	HS

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	A T	2 9	0.3 4	0. 4 8	0. 0 9					
Consti pation	B T	2 9	2.3 4	0. 6 1	0. 1 1	77. 94	16 .3 6	2 8	<0. 001	HS
	A T	2 9	0.5 2	0. 5 1	0. 0 9					
Weakn ess	B T	2 9	1.9 7	0. 6 8	0. 1 3	80. 70	10 .9 5	2 8	<0. 001	HS
	A T	2 9	0.3 8	0. 4 9	0. 0 9					
Lethar gy	B T	2 9	2.4 1	0. 5 7	0. 1 1	80. 00	17 .5 2	2 8	<0. 001	HS
	A T	2 9	0.4 8	0. 5 1	0. 0 9					
Fatigu e	B T	2 9	2.3 8	0. 5 6	0. 1 0	84. 06	15 .2 3	2 8	<0. 001	HS
	A T	2 9	0.3 8	0. 4 9	0. 0 9					



Paired	Sam	ples	Statist	ics			Paired Differences					
Group	(B)	N	Me an	St d. D ev	S. E.	% Cha nge	t	d f	p- val ue	Res ult		
Musc le ache	B T	2 9	2.2 1	0. 62	0. 12	82.8 1	16. 36	2 8	<0. 001	HS		
actie	A T	2 9	0.3 8	0. 49	0. 09							
Durat ion of mens	B T	2 9	1.9 3	0. 73	0. 14	76.9 2	11. 98	2 8	<0. 001	HS		
trual blood	A T	2 9	0.4 4	0. 51	0. 10							
Inter val Bw 2	B T	2 9	2.2 2	0. 58	0. 11	81.6 7	15. 15	2 8	<0. 001	HS		
cycle	A T	2 9	0.4 1	0. 50	0. 10							
Hair fall	B T	2 9	2.3 4	0. 61	0. 11	76.4 7	14. 30	2 8	<0. 001	HS		
	A T	2 9	0.5 5	0. 63	0. 12							



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Table 5: Showing the effect of Weight and BMI inGroup A.

Pairec	l San	nples	s Statis	tics			Paired Differences					
Group (A))	N	Me an	St d. De v.	S. E.	% Cha nge	t	d f	p- val ue	Res ult		
Wei ght	B T A T	2 8 2 8	60. 11 59. 68	7. 23 7. 27	1. 37 1. 37	0.71	2. 06	2 7	0.0 50	NS		
BMI	ь В Т	2 8	25. 19	3. 16	0. 60	0.65	1. 92	2 7	0.0 66	NS		
	A T	2 8	25. 03	3. 22	0. 61							

Table 6: Showing the effect of Weight and BMI in Group B.

Paire	d Sar	nple	s Stati	stics			Paired Differences					
Grouj (B)	0	N	Me an	Std. S. % Dev. E. Cha nge		Cha	t	d f	p- val ue	Res ult		
Wei ght	B T	2 9	61. 79	10.1 1	1. 88	4.4 6	10. 21	2 8	0.0 00	HS		
	A T	2 9	59. 03	9.98	1. 85							
BMI	B T	2 9	25. 97	3.74	0. 69	4.4 6	10. 20	2 8	0.0 00	HS		
	A T	2 9	24. 81	3.67	0. 68							

The above table clearly depicts that in all the groups, mean Weight values was in abnormal range before and after the treatment. In group A, before treatment the mean score 60.11 and after 45 days of intervention mean score 59.68 which is statistically not significant p value-.050 (p>0.05). In group B, before treatment the mean score 61.79 and after 45 days of intervention mean score 59.03 which is statistically highly significant P value- 0.000 (p<0.05). *Agnimandya* causes weight

gain in hypothyroidism. Because of the Agnimandya state, the degree of Meda Dhatu increased due to Mandhyata of Meda Dhatwagni. Weight gain is primarily caused by lethargy-like symptoms that cause patients to avoid physical activity. Shunthi causes Aamapachana and may aid to reduce fluid retention due to its qualities such as Deepana, Pachana, and Vatakaphahara property. The effect of Shunthi has been determined to be significant in terms of body weight improvement in studies.^[10]

The above table clearly depicts that in all the groups, mean BMI values was in abnormal range before and after the treatment. In group A, before treatment the mean score 25.19 and after 45 days of intervention mean score 25.03 which is statistically not significant P value-0.066 (p>0.05). In group B, before treatment the mean score 25.97 and after 45 days of intervention mean score 24.81 which is statistically highly significant (p<0.05).

Table 7: Showing the effect of Thyroid profile in GroupA.

Pair	ed S	amp	les Sta	tistics			Pair	ed D	ifferen	ices
Gro (A)	up	N	Me an	Std. Dev.	S. E.	% Cha nge	t	d f	p- val ue	Res ult
S T 3	B T	2 8	1.2 0	0.75	0. 14	2.05	1. 66	2 7	0.1 08	NS
	A T	2 8	1.1 8	0.68	0. 13					
S T 4	B T	2 8	5.7 4	1.76	0. 33	0.36	0. 41	2 7	0.6 87	NS
	A T	2 8	5.7 2	1.67	0. 32					
S TS H	B T	2 8	13. 56	18.2 8	3. 45	5.97	2. 02	2 7	0.0 53	NS
	A T	2 8	12. 75	17.3 8	3. 28					

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Table 8: Showing the effect of Thyroid profile in Group B.

Pair	ed S	amp	les Stat	tistics			Paire	d Dif	ferenc	es
Gro (B)	up	N	Me an	St d. De v.	S. E.	% Cha nge	t	d f	p- val ue	Res ult
S T3	B T	2 9	1.0 6	0. 36	0. 07	60.1 0	- 10. 07	2 8	0.0 01	HS
	A T	2 9	1.7 0	0. 13	0. 02		07			
S T4	B T	2 9	6.2 7	1. 62	0. 30	17.7 0	- 12. 61	2 8	0.0 01	HS
	A T	2 9	7.3 8	1. 52	0. 28		01			
S TS H	B T	2 9	6.9 4	2. 95	0. 55	36.7 0	5.8 0	2 8	0.0 00	HS
	A T	2 9	4.3 9	0. 75	0. 14					

Before treatment mean score 1.20 in Group A and 1.06 in Group B. After treatment mean score 1.18 in Group A and 1.70 in Group B. There was no significant improvement in T3 level in Group-A (P value-0.108) and highly significant effect on Group-B (P value-0.001).

Before treatment mean score 5.74 in Group A and 6.27 in Group B. After treatment mean score 5.72 in Group A and 7.38 in Group B. There was no significant improvement in T4 level in Group-A (P value-0.687) and highly significant effect on Group-B (P value-0.001).

Before treatment mean score 13.56 in Group A and 6.94 in Group B. After treatment mean score 12.75 in Group A and 4.39 in Group B. There was no significant improvement in TSH level in Group-A (P value-0.053) and highly significant effect on Group-B (P value-0.000). Agnimandya and Uttrottar Dhatu Mandyata are the main causes of hypothyroidism. The drugs Kanchnar and Shunthi both function as Deepan so, Agni Saamyata occurs. According to Acharya Charak

Galagand, Gandamala mainly due to *Mamsa Dhatu Dushti,* and *Kanchnar's Gandamalanashan* ability to control thyroid hormones.

Effect of therapy on haematological parameters and lipid profile

There was statistically insignificant change (P > 0.05) in all the haematological parameters and highly significant change (P<0.05) in lipid profile. Changes in lipid profile like Sr. cholesterol, Sr. triglycerides, HDL, LDL, VLDL were insignificant in group A and highly significant in group B.

Thyroid hormones aid in the reduction of lipid levels by potentiating the effect of catecholamines and other lipolytic hormones. Thyroid hormones enhance lipolysis by potentiating the action of catecholamines and other lipolytic hormones and help in reducing the lipid levels.

Overall effect of therapy

Maximum improvement was found in 62.07% of the patients, 20.69% of the patients showed moderate improvement, 13.79% of the patients showed mild improvement and 3.45% of the patients showed no improvement.

Table 9: Effect o	f Overall therapy	in different groups
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SN	Results	Range	Group A		Group B	
			No of Pt.	%	No of Pt.	%
1.	Maximum Improvement	75% & Above	2	7.14	18	62.07
2.	Moderate Improvement	50% to 75%	8	28.57	6	20.69
3.	Mild Improvement	25% to 50%	12	42.86	4	13.79
4.	No Improvement	25% & Less	6	21.43	1	3.45

Total 28 100.00 29 100.00

DISCUSSION

Thyroid diseases affect 42 million people in India, the most frequent of which is hypothyroidism. Hypothyroidism is a thyroid hormone deficiency that can impact the function of nearly every system in the body. Thyroxine is an iodine-containing hormone released by the thyroid gland that regulates growth and boosts cell metabolism.

Thyroid hormone has the overall impact of activating nuclear transcription of a wide number of genes. As a result, a large number of protein enzymes, structural proteins, transport proteins, and other compounds are created in practically every cell of the body. As a result, there is a widespread increase in functional activity across the body. Iodine can be considered as *Tejomahabhutamsha* and its main content of thyroid hormones.^[11] So, it can be said that that thyroid hormones have *Agni Amsha*. Almost all of the body's chemical reactions would become sluggish if thyroid hormones were not produced by the thyroid gland. As a result, they can be considered a part of *Kayagni*, which is responsible for all metabolic activities.

Dahana, Pachana, and Satmikarana are three functions of the Agni that are linked to metabolic activity in the body. Thyroid hormones regulate the body's whole metabolic process. The concept of agni is very much unique in Ayurveda. Hypothyroidism in Ayurveda can be considered under a disease arising from malfunction of Agni as Agnidushti. According to Acharya Charak Jatharagni is the reason of longevity, colour strength, health, enthusiasm, intelligence, complexion, Ojas (immunity), Tejas (lusture), other varieties of Agni and Prana. Extinction of this Jatharagni leads to death, its power maintenance helps a person to live a long life and its impairment gives rise to disease.

Clinical presentation of Hypothyroidism also exhibits same symptoms like tiredness, letharginess, heaviness in body, sleepiness, loss of appetite. As in cases of Hypothyroidism there is involvement of *Agnidushti* which is compare with basal metabolic rate. Keeping all these above point means the principle of vitiation of *Agni* in mind therefore, here an attempt is made to understand Hypothyroidism through Ayurvedic perspective and principles under the title "A Clinical study to evaluate the efficacy of *Kanchnar Twak Kwath* with *Shunthi Churna* and *Nimb Tail Nasya* in Hypothyroidism".

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So, all three *Doshas* are involved, although hypothyroidism is largely a *Kapha* imbalance according to *Ayurveda*. *Jatharagni Mandhya* causes *Dhatvagni Mandhya* in hypothyroidism, so, we have chosen a medication with *Kapha Vata Shamak* properties.

Mode of action of trial drug (Kanchnar Kwath with Shunthi Churna)

Ruksha and *Laghu Guna* of *Kanchnar Twak* removes the *Margavaran*. According to the findings of this study, the majority of patients have *Mandagni*, hence the qualities of *Deepan* and *Grahi* work on the digestive system by increasing *Agni*.^[12]

Shunthi has the same Deepan property as Kanchnar, therefore it helps to encourage the rise of Agni and Anulomaka, which helps to eradicate constipation because the majority of the patients in this study complained of incomplete evacuation. The properties like Ushna Veerya, Katu Rasa, Tikta Rasa, Laghu Guna favour to cleanse the Srotavrodha.^[13] Shunthi with its Vata Kaphahara quality pacify the symptoms arising out of Vata Dosha and Kapha Dosha.

Mode of action Nimb Tail Nasya

Nimb Tail having Laghuguna, Snigdhguna, and Vatahara Kaphahara properties.^[14] With the help of Laghu Guna, Bhedaniya Prabhava occur of this drug and Tikta Rasa helps in digestion. With its Katu Vipaka increase the Agni and improve the digestion. According to Acharya Sharangdhar Nimb Tail having Sukshmaguna so it reaches easily in microchannels of the body.^[15] The administered oil is quickly absorbed through the nasal route. Tail helps to balance Vata while not aggravating Kapha and Ushna, Tikshna, and Vyavayi Gunas are present in tail. As a result, it has a high capacity for penetrating narrow channels, allowing it to open congested pathways such as the

sinus ostia and assist the drainage of collected effluent. Another therapeutic aspect of *Tail* is that when it is treated with other medications, it absorbs the properties of those drugs as well. When viewed from this perspective, *Tail* is the best *Sneha Dravya* since it not only merges the substance introduced to it, but it also gives up its own properties.

CONCLUSION

The present thesis entitled "A Clinical Study to Evaluate the Efficacy of *Kanchnar Twak Kwath* with *Shunthi Churna* and *Nimb Tail Nasya* in Hypothyroidism. To approached hypothyroidism with *Dosha Pratyaneek Chikitsa*, will help to manage condition better. It means this remedy is safe and effective which not only relieves symptoms but also increase sense of well being leading to more acceptability and better compliance. There is no side effect of hormonal replacement therapy like arrythmia etc. there is symptomatic satisfactory relief in most of cases. The remedy which normalizes the level of thyroid hormone and give symptomatic relief.

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