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A backyard entry to Thyroid Disorders with the help of Agni, Satwa and Sara

Review article

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Abstract

Thyroid disorders are characterized by physical and mental abnormality. We do not have an exact term for thyroid gland in our classics. Therefore, it is not possible to get an explanation of physiology and pathology of thyroid gland from our ancient books. Some of the later Ayurvedic scholars tried to name the thyroid gland, but they could not compare many thyroid disorders with any of the ancient descriptions.

This is a conceptual paper. Here, a humble attempt is made in the following aspects:

- An Ayurvedic perspective on the importance of the location of thyroid gland and naming of thyroid disorders.
- Framing an overall idea about thyroid disorders with the help of the concept of *Agni* (Digestive fire). This is added with role of *Dhatu sarata* (Constitutional essence) and *Satwa* (Psyche).
- To plan the treatment modality, diet in thyroid disorders.
- Some traditional remedies of Kerala which will be useful in thyroid dysfunctions.

Keywords: Thyroid Disorders, Ayurveda, Agni, Dhatu Sarata, Satwa

Introduction

Thyroid disorders are characterized by physical and mental abnormality. Previously it was thought that this group of disorders are sporadic in some places of India-for example goiter is common among the people of Himalaya region due to iodine deficiency. As medical aids reached the common man, it showed that these disorders are prevalent in almost every state of India. An

increasing number of thyroidectomy, either partial or full, in hospitals is a visible evidence for it.

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An Ayurvedic perspective on the importance of the location of thyroid gland and naming of thyroid disorders

The Thyroid gland is located in the anterior portion of the neck. Three doshas are present in each and every cell of human being and some structures are considered as special seats of doshas. *Kantha* (neck) is considered as one among the *Kapha sthana* (site of Kapha humours). Chakrapani in *Charak Shareer* mentioned that the structure “*shleshma bhruva*” (hard structures on both sides of throat) are two in number and located in the neck. It can be taken as thyroid gland (1).

Disorders pertaining to head & neck have been described in Ayurveda. Most of the diseases are explained on the basis of local symptoms, eg. *Sheetad* (bleeding from gums, destruction of gums). In *Shankhaka* (disorder of head), there is severe pain in the temporal region, redness, burning & swelling. It has the intensity of poison & obstructs the throat. The patient dies within three days (2).

If *Shankhaka* is a simple localized disorder, it would not have the intensity of poison and would not cause death quickly. The disease may contain many general symptoms but these are not explained in Ayurveda.

The case with thyroid disorders is the same. We can correlate goiter & some tumour pathology of thyroid to *galganda* (goitre) where thyroid functions may or may not be affected. But hypothyroidism & hyperthyroidism have the symptoms related to many portions of the body. It is very difficult to correlate these two entities with any of the disease mentioned in Ayurveda. Further, hypothyroidism & hyperthyroidism are not single disease entities, and many diseases are included under each heading. It is, therefore, better not to restrict thyroid dysfunctions to any one of the diseases. Similarly, these are not mere localized disorders.

In such a situation, an Ayurvedist need not to give a *roga samjna* (disease name) to the thyroid disorders. He can treat the disease by knowing the condition of *Dosha* (Humours), *Dhatu* (Elementary tissues) & *Agni* (Digestive fire) components etc. and their interrelation (3).

“*Vikaranam Akushalo na Jivhiyat Kadachan*
Na hi Sarva Vikaranam Namato asti Dhruva sthiti” *C.S.Sutra 18/44*

Framing an overall idea about thyroid disorders by Dhatu sarata and Satwa which are added with description of Kayagni

The features of hyperthyroidism and hypothyroidism are (4):

Table no.1: Features of Hyperthyroidism and Hypothyroidism

| System | Hyperthyroidism | Hypothyroidism |
|--------------------|---|--|
| Gastro-intestinal | Weight loss despite normal or increased appetite, Hyperdefecation, Diarrhoea and steatorrhoea, Anorexia, Vomiting | Weight gain, Constipation, Ileus, Ascities, Anaemia |
| Cardio-respiratory | Palpitations, Tachycardia, Ankle Oedema, Cardiac failure, Dyspnoea on exertion | Bradycardia, Hypertension, Pericardial and Pleural effusion |
| Neuro-muscular | Nervousness, Irritability, Emotional lability, Psychosis, Tremor, Muscle weakness, Proximal myopathy | Aches and pains, Muscle stiffness, Deafness, Depression, Psychosis |
| Dermatological | Increased sweating, Pruritis, Palmer Erythema, Alopecia, Pigmentation, | Dry Flaky skin & Hair, Alopecia, Myxoedema |
| Reproductive | Amenorrhoea, Oligomenorrhoea, Spontaneous abortion, Infertility | Menorrhagia, Loss of libido, Impotence, Infertility |
| Ocular | Exophthalmos | Lid Retraction Affected |
| General | Heat intolerance, Fatigue, Thirst, Goitre | Cold intolerance, Tiredness, Somnolence, Goitre |

In hypothyroidism there is ascities, illeus, constipation & anaemia, which may be due to improper *Sara- Kitta Vibhajana* (essence-excretory digestive ferments) by *Pachkagni* (digestive fire).

The gastro-intestinal symptoms of hyperthyroidism resemble the features of *Atyagni* (intense digestive fire) mentioned by Charaka. This diagnosis cannot be taken for granted because we cannot call hypothyroidism as *Mandagni* (weak digestive fire). At present juncture; we can say that, functions of *Kayagni* (digestive fire) will be abnormal in both these conditions.

The state of *Kayagni* (digestive fire) is very important as far as remaining *Pitta* (Pitta humour), *Bhutagni* (fire of five elements) & *Dhatwagni* (fire of seven tissue elements) are concerned. It gives strength & nourishment to other *pittas*. It can be compared to the main electric source of the house. Even though the electric source is only one, it can be used for many purposes such as heaters, fans, bulbs, fridge etc. It is named accordingly. Similarly, *pitta* is divided into five types based on their locations and functions. Let us see the condition of *pittas* in thyroid dysfunctions

Table No.2: Condition of Pittas (Pitta humour) in thyroid dysfunctions

| Pitta | Hyperthyroidism | Hypothyroidism |
|---------------|---|--|
| Pachak Pitta | Increased Appetite, Hyperdefecation, Diarrhoea, Steatorrhoea, Anorexia, Vomiting | Constipation, Ileus, Ascities, Loss of Libido, Impotence |
| Sadhak Pitta | Nervousness, Irritability, Emotional Lability, Psychosis, Tremor, Muscle Weakness | Aches & Pains, Muscle Stiffness, Deafness, Depression, Psychosis |
| Alochak Pitta | Exophthalmos | Lid Retraction Affected |
| Bhrajak Pitta | Increased Sweating, Pruritis, Palmer Erythema, Alopecia, Pigmentation | Dry Flaky Skin & Hair, Alopecia, Myxoedema |
| Ranjak Pitta | Hot Flushes, Palmer Erythema, Intolerance to Heat, Alopecia | Anaemia |

After observing symptomatology, it is clear that *pachaka* & *sadhaka* pitta (types of pitta humour) are severely vitiated. Functions of these two are hyper activated in hyperthyroidism and subnormal in hypothyroidism.

Decrease –Increase of tissue elements

“Swasthanasthasya kayagne ansha dhatushu sanshrita

Tesham sadatidiptibhyam dhaturuddhi kshayodbhava” A.H.Sutra 11/34

Further, the condition of *Dhatwagni* (fire of seven tissue elements) in hyper & hypothyroidism can be explained. *Dhatwagnis* are considered as part of *Kayagni* and are located in *Dhatu*. Increase of *Dhatwagni* brings *Dhatu kshaya* (diminished tissue elements) & decreased *Dhatwagni* will lead to *Dhatu vridhhi* (increased tissue elements). In case of hyperthyroidism patient will lose weight. It is due to the increased *Dhatwagni* which cause *Dhatu kshaya*. In

hypothyroidism, weight gain is due to decrease in *Dhatwagni* (5).

Some Ayurvedic scholars opines that functions of *sadhaka pitta* are related to hormones running in circulation and having the power to raise or lower the activity level of the body or certain organs. “*Agnirev sharire pittantargat kupit akupit shubh ashubhani karoti tadyatha paktim apaktim darshanam adarshnam matra amatratwam ushman prakruti vikruti varnau shoryam bhayam kroadham harsha moham prasadam ityevam aadini chaparani dvandvaniti*” C.S.Sutra 12/11

The functions ascribed to *pitta* in its normal and abnormal states of functioning are : digestion or indigestion; visual perception or its impairment; normal or abnormal body heat; normal or abnormal colour of the body; courage, fear, anger, cheerfulness, confusion, lucidity and such other opposite trait (6).

It is better to revise the *Dhatu Saralaxana* (constitutional essence) in the

advanced condition of thyroid dysfunction. We are not getting the features of *Dhatu sarata* (excellence of tissues) especially of *Rasa* (skin), *Mamsa* (muscle tissue), *Asthi* (bone & cartilage tissue) and *Majja Sara laxana* (marrow tissue) (7). This suggests that the bodily tissues are not in normal condition in disorders of the thyroid gland.

When the *Dhatus* of the body are in normal condition (*Dhatu Samyavastha*), the *Satwa* (Psyche) of the person attains normality. Ayurvedic theory repeatedly stresses the correlation of body & mind. In thyroid disorders, the *Dhatus* are not in normal condition and, if not treated properly, they will lead to involvement of *Satwa* (8). That is why we get psychological symptoms such as depression & psychosis in hypothyroidism and anxiety & irritability in hyperthyroidism. Further certain thyroid disorders such as myxoedema, cretinism etc come under *Ashta Nindita Purusha* (eight despicable). In *Ashta Nindita Purusha* the *Dhatus* are not developed properly and, in clinical practice, they usually exhibit abnormal psychic patterns.

To plan the treatment modality, diet in thyroid disorders

Our body is governed by two factors: *Agneya* & *Sheeta* (hot & cold). In thyroid disorders, mainly the *Agneya* (hot) factor will be affected. Imbalance of *Agneya* factor can be inferred by disturbed functions of *pitta* & condition of *Dhatus*. In hyperthyroidism, the function of *pitta* is hyper activated and the patient shows exaggerated mental symptoms. So the *pitta upakrama* (regimen of Pitta humor) can be followed.

Mriduvirechana (mild laxative), food & medicines of *Tikta*, *Kashaya* and *Madhur rasa* (bitter, astringent & sweet taste) are to be adopted. Food of *madhur rasa* is useful to stabilize the *Pachaka pitta* (type of pitta humour) & *Tikta dravyas* (bitter drugs) are useful to penetrate the *Dhatus*, thereby nourishing

them. External body applications of drugs like *Karpoora* (Camphor), *Chandana* (Indian sandalwood) and *Ushira* (Khuskhus grass) will give symptomatic relief to the patient.

As a regimen, the patient should follow the *Greeshma rutucharya* (Regimen of Summer season) & regimen such as residing in cool place, wearing gems, taking rest in pleasant place along with agreeable people, etc should be followed (9).

Hypothyroidism shows the features of *Kaphavridhi* (increase of Kapha humour) & subnormal mental symptoms. Therefore, drugs which are *teekshna* (penetrating power) and which increase the psychical factor should be administered.

Diet in Thyroid Disorders

Considering food for victims of thyroid disorders, there should be a food plan separately for hyper & hypothyroidism. For hyperthyroidism, food possessing *vata* & *pittahara* (*Vata* & *Pitta* pacifying) qualities, *snigdha* (unctuous), *sheeta* (cold), *manda* (slow), *guru* (heavy) food that reduces heat & thirst and which can give symptomatic relief to the patient should be planned. For hypothyroidism, the food should be *kaphahara* (Kapha pacifying), *ushna* (hot), *teekshna* (penetrating) and those stimulating the nervous system should be advised (10).

Some traditional remedies of Kerala which will be useful in thyroid dysfunctions

Traditional remedies can be divided into two groups: local application and internal medicine.

Local application

Paste of *shigru bark* (Drumstick plant) mixed in water. A cloth piece is dipped in this water and after completely dry; the cloth is tied loosely round the neck of the patient for 15 days, during

night. By this application the size of the thyroid gland will be reduced. But application for longer durations may cause emaciation of neck muscles.

Shwetha sarshapa kalka (paste of white mustard) is widely used in conditions where symptoms such as localized redness, burning sensation, etc are absent.

External application of *Krishnadi gulika* is another effective formulation.

Doshagna lepam can be used for local application.

Coconut oil prepared with *parantimoola* & onion, is used for application overhead.

Internal medicine

Kashaya (decoction) is one of the most popular forms of medicines in Kerala. Traditional practitioners use the following medicines in thyroid dysfunction cases.

- Drakshadi kashaya
- Mahatikta kashaya mixed with dhatri swarasa
- Tiktaka kashya
- Tiktaka & Mahatikta kashayas are useful in correcting the action of *rasa dhatwagni* (fire of rasa tissue), thereby helping proper formation of dhatu. Similarly; Mahatiktaka ghrita can also be used.
- Trayantyadi kashaya
- Kanchnar Guggulu
- In hypothyroidism cases, some traditional practitioners recommend using the powder of vacha, hingu, daruharidra, and jatamansi & shweta shankhapushpi.

Discussion:

Thyroid disorders are hormonal disorders, comprising of group of symptoms involving different systems of body. There is no direct reference available about anatomy, physiology and pathogenesis of Thyroid gland & its disorders in ayurvedic classical texts.

Hence there was an intense need to clarify the subject with Ayurvedic perspective. The same has been done successfully by comparing the symptomatology of Thyroid disorders mentioned in modern medical books to that of Ayurveda terminology.

Conclusion:

Hence Ayurveda always stress that if you won't find the name of particular disease in texts, in such a situation fit all the symptoms of that disease in its basic principles and then only treat as per Ayurvedic principles of treatment. So it can be concluded that Ayurvedic system of medicine can also provide a relief to the patients suffering from Thyroid disorders and patient can take benefits of Ayurveda medicines for healthful longevity.

References:

1. Kashinath Pandey. Charak Samhita Vol1. Sharir sthana. Chapter7 sutra11. Varanasi; Chaukhambha Bharati Academy; Reprint 2005. 913p.
2. Kashinath Shastri. Charak Samhita Vol2. Siddhi sthana. Chapter9 sutra71-73. 21 ed. Varanasi; Chaukhambha Bharati Academy; 1995. 1067p.
3. Kashinath Pandey. Charak Samhita Vol1. Sutra sthana. Chapter18 sutra44. Varanasi; Chaukhambha Bharati Academy; Reprint 2005. 383p.
4. Christopher R.W. Edwards, Ian A.D. Bouchier. Davidson's Principles and Practice of Medicine. Chapter 13. 16 Ed. Edinburgh; ELBS Churchill Livingstone; reprinted 1992. 623&630p.
5. Yadunandana Upadhyaya. Astang Hrdaya. Sutra sthana. Chapter11 sutra34. 4 ed. Varanasi; Chowkhamba Sanskrit Series; 1970. 88p.
6. Kashinath Pandey. Charak Samhita. Vol1. Sutra sthana. Chapter12 sutra11. Varanasi; Chaukhambha Bharati Academy; Reprint 2005. 251p.
7. Kashinath Pandey. Charak Samhita. Vol1. Vimana sthana. Chapter 8 sutra



- 103, 105, 107, 108. Varanasi; Chaukhambha Bharati Academy; Reprint 2005. 776p.
8. Kashinath Pandey. Charak Samhita. Vol1. Vimana sthana. Chapter8 sutra 110. Varanasi; Chaukhambha Bharati Academy; Reprint 2005. 777p.
9. Kashinath Pandey. Charak Samhita. Vol1. Vimana sthana. Chapter6 sutra 17. Varanasi; Chaukhambha Bharati Academy; print 2005. 722p.
10. Kashinath Pandey. Charak Samhita. Vol1. Vimana sthana. Chapter 6 sutra18. Varanasi; Chaukhambha Bharati Academy; Reprint 2005. 723p.
