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Review Article

### AN OVERVIEW OF GALGANDA IN AYURVEDA W.S.R. TO HYPOTHYROIDISM

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#### ABSTRACT

*Ayurveda* from its existence into the modern world is facing a major challenge. Endocrine disorders are difficult to understand in *Ayurveda*. Though certain disorders like Diabetes mellitus are well described in various *Ayurvedic* texts but as far as diseases of thyroid gland are concerned they are not well understood. In *Ayurveda*, we correlates the disorders caused by thyroid gland as *Galganda*, *Gandmaala* etc but the concept of hormone overproduction or under secretion is somewhere missing. Hence, here is an attempt to get the understanding of disease Hypothyroidism with *Galganda* through various *Ayurvedic* principles so as to set its treatment goals.

**Keywords:** Endocrine Disorders, *Galganda*, *Gandmaala*, Hypothyroidism, Thyroid gland.

#### INTRODUCTION

*Ayurveda* from its existence into the modern world is facing a major challenge in terms of its fundamentals, *Dravyas*-for making herbal preparations and the various *Yogas* (formulatory compositions) implicating into various disorders. As per Classics, origin of *Ayurveda* is through *Daiv-parampara* which ancestor from Lord *Brahma* to *Dev-Rishi Indra*, who further gave this science to his pupil like *Maharishi Bhardwaj* as per *Charak Samhita*<sup>1</sup>, *Atreya* as per *Ashtang Sanghra*<sup>2</sup> and other various *Acharyas* as per different classics and this holy science came into existence on earth by these different *Acharyas* and their different disciples. The knowledge which *Indra* shared to his pupils was in *Sutra Roopa* and hence the impact of that *Sutra-Roopa Ayurveda* is well reflects in such Classics. It becomes sometimes difficult to understand the comprehensive knowledge of *Ayurveda* that is true with the most of diseases itself.

Endocrine disorders are one of them. Though certain disorders like Diabetes mellitus<sup>3-4</sup> are well described in various *Ayurvedic* texts but as far as diseases of thyroid gland are concerned they are not well understood. In various texts, *Galganda*, *Gandmaala* etc are described as *Ek-deshiye sotha* by *Acharya Charak* in *Trisothiya Adhyaya* of *Sutra-Sthana* chapter 18 but a complete knowledge of that particular disease is not understood. Though *Acharya Charak* also elaborated the concept of *Sotha* in its *Chikitsa-Sthana*<sup>5</sup> but lack the certainty

of disorders caused by thyroid gland. *Charaka* also includes *Galganda* in *Nanatmaja Kaphaja Roga*<sup>6</sup>.

In *Ayurveda*, we correlates the disorders caused by thyroid gland as *Galganda*<sup>7</sup>, *Gandmaala*<sup>8-9</sup> etc. but the concept of hormone overproduction or under secretion is somewhere missing. Hence, here is an attempt to get the understanding of disease Hypothyroidism with *Galganda* through various *Ayurvedic* principles so as to set its treatment goals.

#### AIMS AND OBJECTIVES

1. To find out the factors involved in hypothyroidism as per *Ayurvedic* principles.
2. To develop the concept of hypothyroidism in terms of *Ayurveda*.

#### MATERIALS AND METHODS

All valid books viz. *Samhitas* & their respective commentaries have been referred for the specific materials & the topics are discussed on the basis of its conceptual part to draw out ultimate conclusion.

#### PRINCIPLES

- Thyroid hormones functions as a controller of pace of all of the processes in the body. This pace is known as metabolism, if there is underproduction of thyroid hormones every function of the body tend to get down<sup>10</sup>.

In *Ayurveda Galganda* occurs when there is vitiation of *vata* and *kapha doshas*, predominantly *kapha*

which further results in disturbances of *Meda* and *Majja Dhatus*, resulting in formation of *Galganda*<sup>11</sup>. *Dushti* of *Rasadhatu* plays a major role in pathogenesis. Many of *Rasaja Vikaras*<sup>12</sup> which have been mentioned in *Charak samhita* are similar to the clinical features of hypothyroidism i.e. *Asradhdha*, *Aruchi*, *Gaurava*, *Tandra*, *Angamarda*, *Panduroga*, *Klabhya*, *Srotorodha*, *Agnimadhya* etc. Hormonal disturbances are the dysfunction of *Agni*. *Rasadhatvagni-mandhyata* leads to *Rasa Vridhi* and over production of *Mala* of *Rasadhatu* i.e. *Mala Kapha Vridhi*. *Dhatvagnimandhya* is also the major features of the disease<sup>13</sup> and all these features contributes with the modern concept of metabolism i.e, decreased Basal Metabolic Rate.

- The vary commonest etiology of hypothyroidism is spontaneous atrophic hypothyroidism with a prevalence of 20-50 yrs of age and commonly among females resulting in non goitrous type of hypothyroidism<sup>14</sup> whereas Hashimoto's thyroiditis is another common example for goitrous type of hypothyroidism which is an autoimmune disorder with no specific causes<sup>15</sup>.

In *Sushruta Samhita* at different places, under different topics few references for *Galganda Nidana* are available<sup>16</sup>. Since *Galganda* is considered as *Nanatmaja* type of disease of *Kapha*, the provocative factors of *Kapha* can also be taken as the cause of it. All Etiological factors given either for *Sotha Roga* or *Kapha Prakopa* have also been reviewed.

In *Rasavishesiya Adhyaya* of *Sutrasthana*, *Sushruta* mentions that excessive use of *Madhur Rasa* can produce *Galganda*<sup>17</sup>. *Charaka* has the opinion for *Madhura Rasa*<sup>18</sup>. In *Drava Dhravya Vidhi Adhyaya* of *Sutrasthana*, while describing the quality of water, *Sushruta* mentions that, water of river of Himalaya Pradesh produces *Galgand*<sup>19</sup>. Today in mountaining region of Himalaya and Himachala pradesh endemic Goiter is more common. It is due to the less iodine content in water.

The involvement of *Dosha*, *Dhatu* and *Dhatvagni* are more clear by following comparison of signs and symptoms of hypothyroidism with an *Ayurvedic* approach.

- 1) **Anorexia:** It is due to *Mandagni* by influence of *Kapha Dosha* and *Rasa Dhusti*.
- 2) **Constipation:** From the *Ayurvedic* point of view, the *Appakarshani Gati* of *Mahasrotasa*, which play a role in *Anulomana* of *Mala* and *Vayu*, gets to slow down, owing to the aggravated *Kapha* in *Pakvashaya* with increase of *Manda Guna* of *Kapha*.
- 3) **Weight Gain:** Because of *Guru Guna* of *Kapha Dosha* and *Pruthvi* and *Jala Mahabhuta* involved in *Kapha Dosha*, the weight gain occur. It can also be considered as, hypometabolism i.e. hypofunctioning of *Dhatvagni*. *Dhatvagnimandhya* leads to less formation of *Dhatu*s and thus, accumulation of *Upadhatus* and *Mala* which may result in weight gain.

- 4) **Hoarseness of voice:** It can be also said that, due to increase in *Manda Guna* of *Kapha*, Hoarseness of voice appears. *Sharangdhara* has mentioned hoarseness of voice as a *Kaphaja Vikara*<sup>20</sup>.
- 5) **Anaemia:** According to *Ayurveda*, *Panduta* is due to *Rasa Dushtijanya* as well as *Kapha Dosha*<sup>21</sup>.
- 6) **Menstrual Disturbances:** *Rasa Vridhi* occurs in hypothyroidism As augmented *Rasa* is in *Asthayi Avastha*. It may be unable to nourish *Upadhatu Artava* and *Uttar Dhatu Rakta*. As a result of this *Artava Pravriti* may be disturbed.
- 7) **Coarse and Dry Skin:** Augmented *Rasa* cannot nourishes *Rakta Dhatu* leads to dryness and coarseness of skin<sup>22</sup>.
- 8) **Bradycardia:** Bradicardia may result from propagation of *Kapha* with its *Mandaguna*.
- 9) **Excessive sleep:** *Kapha Vridhi* causes *Tandra* and *Atinidra*<sup>23</sup>. *Rasa Vridhi* also leads to excessive sleep<sup>24</sup>.
- 10) **Generalised pain:** Hypothyroidism can be considered as *Dhatvagnimadhya* *Vikara*. Aggravations of *Vata* by *Vaishmya* of *Dhatu*s create generalized aches and pain. *Angamarda* is mentioned as a *Rasaja Vikara*<sup>25</sup>.
- 11) **Weakness:** Capability for work or for exercise or strength depends upon the normal state of *Dehadhatu*. *Dhatu Vaishmya* leads to *Daurbalya* and *Klama*. *Balasaka* means *Bala Kshaya* which is included in a *Nanatmaja Vyadhi* of *Kapha Dosha*.
- 12) **Myxedema:** This non-pitting type of oedema found in hypothyroidism is due to increase in mucoprotein ground substance. This is due to *Sthira Guna* of *Kapha Dosha*.

All the above symptoms indicates the involvement of *Kapha Dosha*, *Rasa Dhatu*, and *Rasa Dhatvagni* in the hypothyroidism. Above all *Kapha Dosha* plays a major role in the disease hypothyroidism.

#### MANAGEMENT

keeping in consideration the *Doshas* & *Dhatu*s, concept of *Agni-Mandya*, *Srotovoradha*, we can manage the symptoms of hypothyroidism with an effective *Ayurvedic* management.

- **Sodhana** (*Panchkarma* therapy/purification) particularly *Vamana* is indicated. *Acharya Susurta*, advised decoction of *Pippalayadi Gana Dravyas* along with *Panch Lavana* for the purification purposes. He also mentioned *Shiro-Virechna* & *Virechnic Dhoompaana* for the said purpose<sup>26</sup>.
- **Raktamokshana** (Blood letting) *Acharya Susurta* mentioned *Ansh sandhi siravedh karma* for *Raktmokshana* purpose<sup>26</sup>.
- **Samana Chikitsa** is then important after completing *Sodhana* therapies.
- **Pathya-Apathya** *Parval*, *Makoi Shhak*, *Neem Leaves Shaak*, *Puran Shaali*, *Jaangal* & *Vishikar Prani Mansa* should be taken as *Pathya*<sup>26</sup>. Whereas the food which vitiate the *Kapha doshas* like *Guru*, *Snigdha*, *Sheeta Annapaana* etc. should be avoided.
- Use of *Purana Ghrita*/ *Langhana*(fasting)/ *Pragharshana* (Rubbing with *Kalka*/Churnas) /*Kawal* etc. should be done on regular basis<sup>26</sup>.

- *Trikatu Churna* with honey, *Yava* dipped with *Gomutra* or intake of *Gomutra*, *Mung Yusha*(soup) processed with *Neem-Patr Swarasa*(juice) along with regular use of *Yava* as a dietary recommendation is strongly recommended by *Acharyas*<sup>26</sup>.
- **Ayurvedic formulations** like *Arogyavardhini Vati*, *Kshar Gutika Chitrikadi Vati*, *Shilajitwadi Vati*, *Agnikumar Rasa*, *Ras-parpati*, *Nityanand Rasa*, *Kanchnar Gugglu*, *Triyodashang Gugglu*, *Medohar Gugglu*, *Gandiraristha*, *Punarnavdiristha*, *Phalatrikaristha*, *Ashthsatharistha*, *Dashmool Kwath*, *Punarnavadi Kwath*, *Trinpanchmool Kwath*, *Rasnadi Kwath*, *Pippaliadi Kwath etc.*, are few *Ayurvedic* formulations, mentioned in different Classics at different places are effective at various levels in Hypothyroidism.
- **Rasayanas** *Vardhaman Pippali Rasayana*, *Chawanprash*, *Brahm Rasayana*, *Shilajit Rasayana*, *Bhallataka Rasayana*.
- **Non pharmacological** measures like *Yoga*, *Pranayams* must be done<sup>27</sup>. *Singhasana*, *Ujjaaai*, *Shitali Pranayama* can show promising results in Hypothyroidism.

## CONCLUSION

The fundamentals of *Ayurveda* are very strong and deep rooted. The most popular theory and concepts of *Tridoshas*, *Agni's* can never be denied. After through study of literature and fundamentals both in *Ayurveda* and Modern, it is concluded that the approach of *Galaganda* in *Ayurveda* is very practical and should never be overlooked. Thereby future aspects of treating such conditions through *Ayurveda* must be carried out.

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