



CORRELATION BETWEEN GALAGANDA AND HYPOTHYROIDISM.

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Article Received on 04/05/2023

Article Revised on 25/05/2023

Article Accepted on 14/06/2023

ABSTRACT

Thyroid gland usually located below and anterior to the larynx, consists of two bulky lobes connected by a relatively thin isthmus. In response to hypothalamic factor, TSH (thyrotropin) is released by anterior pituitary into circulation. Thyroid follicular epithelial cell convert thyroglobulin into Thyroxine (T₄) and lesser amounts to Triiodothyronine (T₃). Diseases of the thyroid include conditions associated with excessive release of thyroid hormones (hyperthyroidism), thyroid hormone deficiency (hypothyroidism). Hyperthyroidism defined as a hyper metabolic state caused by elevated circulating levels of free T₃ and T₄. Hypothyroidism is defined as a condition caused by a structural or functional derangement that interferes with the production of thyroid hormone. Hypothyroidism is a common disorder. By some estimates, the population prevalence increase with age and it is nearly tenfold more common in women than in men. Primary hypothyroidism is up to 8–9 time more common in women than in men, and the prevalence increases with age, with a peak incidence between the ages of 30 and 50 years. According to Ayurveda, this disease is termed as Galaganda.

KEYWORDS: Hypothyroidism, Galaganda, Thyroid-stimulating hormone (TSH).

1.1 INTRODUCTION

According to Ayurveda, A swelling in the neck, big or small hanging like scrotum has been defined as Galaganda. A morbid excess of *vata* and *kapha* brings about changes in the fat (*medas*) and causes swelling in the neck and around it. In this morbidity, features of the vitiated dosas manifest gradually. This condition is known as Galaganda.

Hypothyroidism is diagnosed biochemically, being over primary hypothyroidism defined as serum thyroid stimulating hormone (TSH) concentration above and Thyroxine concentration below the normal range. Hypothyroidism is a chronic disease associated with deficiency in the thyroid hormone, Thyroxine (T₄) and Triiodothyronine (T₃). Environmental iodine deficiency is the most common cause of thyroid disorders, including hypothyroidism, worldwide, while in areas of iodine sufficiency, the most common cause of primary hypothyroidism is autoimmune thyroiditis.

According to the time of onset it is divided into congenital and acquired, according to the level of endocrine dysfunction into primary and secondary/central and according to the severity into severe/clinical and mild/subclinical.

The distinction between subclinical and clinical hypothyroidism is of major significance as in clinical hypothyroidism symptoms are more severe. While the cause of primary and secondary hypothyroidism is primary is caused by failure of thyroid function and secondary is caused due to failure of adequate thyroid stimulating hormone (TSH) secretion from the pituitary gland.

1.1.1 CAUSES

- Primary hypothyroidism can be congenital, autoimmune, or iatrogenic.

1. Congenital hypothyroidism

It is most often caused by iodine deficiency in the diet. Other rare forms of congenital hypothyroidism include inborn errors of thyroid metabolism. In rare instances there may be complete absence of thyroid parenchyma or the gland may be greatly reduced in size due to mutation of genes.

2. Autoimmune hypothyroidism

It is the most common cause of hypothyroidism in iodine-sufficient area of the world. It majority of cases it is due to Hashimoto thyroiditis. Circulating autoantibodies, including antimicrosomal, antithyroid peroxidase, and antithyroglobulin antibodies, is found in

this disorder, and the thyroid is typically enlarged (goitrous).

3. Iatrogenic hypothyroidism

This is caused by either surgical or radiation-induced ablation. Drugs given intentionally to decrease thyroid secretion can also cause acquired hypothyroidism.

- Secondary hypothyroidism is caused by deficiency of TSH. Any cause of hypopituitarism or of hypothalamic damage from tumors, trauma, and radiation therapy can cause central hypothyroidism.

1.1.2 CLINICAL FEATURES

➤ **CRETINISM**

It refers to hypothyroidism that develops in infancy or early childhood.

- Impaired development of the skeletal system and central nervous system.
- Mental retardation
- Short stature
- Coarse facial feature
- Protruding tongue
- Umbilical hernia



➤ **MYXEDEMA**

It refers to hypothyroidism developing in the older child or adult.

- Slowing of physical and mental activity
- Initial – Fatigue, apathy, and mental sluggishness.
- Speech and intellectual functions are slowed
- Cold intolerant
- Frequently overweight
- Decreased sweating
- Constipation
- Paleness of skin
- Shortness of breath
- Decreased exercise output
- Non pitting edema
- Enlargement of the tongue
- Deepening of voice
- Increase in total cholesterol level
- Dry skin
- Hair loss
- Facial periorbital edema
- Enlarged thyroid
- Coarse hair and skin
- Galaganda
 - Bad taste in mouth
 - Rough skin
 - Swelling in throat associated with pricking pain, slow in growth, big in size.
 - Cold in touch
 - Cooing sound in the throat

➤ **CORRELATION**

| Galaganda | Hypothyroidism |
|---|---|
| i. Swelling in throat associated with pricking pain, slow in growth, big in size. | Enlarged thyroid, Non-pitting edema. |
| ii. Rough skin | Coarse hair and skin |
| iii. Cold in touch | Cold intolerance |
| iv. Cooing sound in the throat | Deeping of voice Hoarseness of voice |



1.1.3 DAIGNOSIS

The diagnosis of hypothyroidism is made from the history the clinical picture and the laboratory measurement. Measurement of the serum TSH level is

the most sensitive screening test for this disorder. Normal limit of TSH is between 0.4-4.0mU/l. elevations in the level of TSH indicate the person is suffering from hypothyroidism.

1.1.4 MANAGEMENT

Galaganda can be managed by pippali churna, kanchanara guggulu, Amrtayadya taila, Asvagandha curna, pravala bhasma, Arogyavardhani vati etc. beside this neck exercise and yogic practices are helpful. Kanchanara is specific for proper function of thyroid. Hypothyroidism is managed by replacing thyroid hormone for life long period with Levothyroxine sodium.

1.2 DISCUSSION AND CONCLUSION

We have discussed about thyroid and its disorder. And about hypothyroidism its types, causes, clinical features, and diagnosis. Hypothyroidism is the frequent disease affecting more women than men.

1.3 REFERENCE

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