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Review Article

**A MINI REVIEW ON UNDERSTANDING FAMILIAR
ENDOCRINE DISORDER-THYROID**

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Telangana, India-500075.**Abstract:**

In this article we discuss about thyroid gland, being a vital endocrine gland for regulating body metabolism and protein synthesis like Thyroxine and thyroglobulin vital for body metabolism. A familiar disorder found one in every four members of Indian population and worldwide. This metabolic disorder also associated in developing other complications like atherosclerosis, cardiovascular, obesity and insulin resistance. gender wise both males and females are at risk especially above age of 60. Where females face high health risk dealing complicated issues especially during pregnancies accompanied by iron deficiency. Treatment plans involves interception of all social, psychological and biological factors with the hormonal replacement therapy to manage the symptoms keeping track on daily routine dietary supplements to lead a normal life.

Keywords: Hypothyroidism, metabolic disorder, Health management.

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INTRODUCTION:

Health is vital for leading a quality of life. Any disturbances in health and process to recover in chronic diseases and disorders affecting life-long management is difficult. To be aware of the disease management process is important to reduce anxiety in already suffering and restoring them to normal lives by suitable treatment plans. Of the many diseases Thyroid is a topic of concern where Dr.Jitendra has addressed at a conference in

chandigarh about 42 million Thyroid affected Indians and it is directly affecting the working efficiency in India, where 70 % of Indians are below 40 years of age^{1,2}.

Thyroid gland controls the metabolism vital for body functions and in Thyroid gland Thyrocyte endoplasmic reticulum synthesizes two proteins Thyroid peroxidase (TPO) and thyroglobulin (Tg)³⁻⁵. Thyroid diseases types are briefed in Table no.1.

Table no.1 symptoms of various thyroid conditions

S.No	Disease Type	Symptoms	Conditions
1.	Hypothyroidism	Dry skin Feeling cold Hair thinning & hairfall Weight gain Bloating/swelling/puffiness in legs and face. Constipation Lethargy.	Hypothyroidism- characterized by low levels of thyroid hormone production than body requirements deficiency.
2.	Thyroid cancer	Pain in neck & throat Hoarse voice Nodules growth Swelling of nodules in the neck Difficulty in swallowing	Thyroid cancer is a metastatic disease condition observed by cancerous cells growth and spread to the neck, lymph nodes and distant parts of body depending upon severity. An early detection showed positive results in recovery.
3.	Hyperthyroidism	Twitchings/trembling Warm skin/ excessive sweating Reddish palms Irregular or unusual heart beats. Loose nails Swelling in neck Urticaria-itchy/raised rash Patchy hair loss	Hyperthyroidism-characterized by high levels of thyroid hormone production leading to toxicosis.
4.	Thyroiditis	Mood swings Weight gain Cold intolerance Trouble concentrating/memory recalling problems Constipation	Thyroiditis is an anti-inflammatory condition observed in thyroid gland.
5.	Thyroid nodules	Pain in front of neck Sudden weight loss Voice changes Fast/irregular pulsations Nervousness/anxiety Sensation of growing nodules	Thyroid nodules, lumps in thyroid gland are observed on daily checkups as it may lead to cancerous growth.

		and swelling felt around the neck Neck pressure Difficulty in swallowing. tremors	
6.	Goiter	Neck vein swelling A lump in front of the neck or below Adam's apple Tightness feeling in throat area. Scratchy voice Dizziness observed when arms are raised above shoulders.	Goiter condition observed by smooth lump on one side of neck usually painless. Treatable.

Table no. 2 Gender wise symptoms and untreated health risks

Gender	Symptoms severity	Untreated symptoms lead to
Male	Anxiety Fatigue Weight loss	Affects heart Muscles Sperm quality
Female	Menstrual cycle may be early or delayed or absent. Cold intolerance Hair loss/brittle hair Skin dryness Weight gain/ difficulty in losing weight. Constipation. Brain fog condition is severe. Puffy face Tiredness. Digestion issues Irritability.	Pregnancy can be at high risk. Depression Difficulty in weight management.

The above conditions observed in males and females. The risk of thyroid diseases are 8 times higher for females than males and females are having more complicated health issues especially during pregnancy an additional dose given to support the baby growth development. There are associated diseases observed along with thyroid disease are at cardiovascular risk due to increased cholesterol levels, weight gain, slow liver metabolism & function, arteries become less elastic, circulation of blood is slowed down, heart beat rate is reduced and may lead to mortality^{6,7}.

Diagnosis includes medical history, Physical examination, Thyroid tests, Thyroid Scan, T3-Triiodothyronine, T4- Thyroxin, TSH-Thyroid stimulating Hormone, Ultrasound guided Biopsy⁸. Treatment for thyroid condition irrespective of its cause the management of health with regularization of hormone levels is utmost important to relieve them from symptoms⁹⁻¹¹.

1. Thyroid hormone treatment involves daily intake of oral tablets levothyroxine as a substitute to natural hormone produced daily for body metabolic needs.

2. Thyroidectomy- a surgical procedure of 1-2 hrs where part or all of thyroid gland (cancer condition) removed. The patient is under physician's advice and with regular checkup can continue to lead a normal routine lives.
3. Complementary medicine and alternative medicine treatment support thyroid disease symptoms management by dietary supplements like nutrients- vitamins, minerals, herbs, probiotics.

Efficient treatment plans also consider following factors such as

- ❖ social factors like socioeconomical, economic stability, language, health literacy, education.
- ❖ biological factors like family history, immune responses.
- ❖ Psychological factors like persistent mood swings, anxiety, depression, fatigue, cognition problems^{12,13}.

CONCLUSION:

overall the thyroid disease is life long and patients can continue to lead a normal life provided with

support from health professionals and regular diagnosis of hormone levels and taking timely medication and regular exercise, dietary supplements recommended by health professionals and early detection of the thyroid disease is very important to avoid complications and associated diseases which may be lethal as age progresses.

REFERENCES:

1. Mokle K, Sanap G. Review On Thyroid Disease. International Journal of Pharmaceutical Sciences. 2023;1(12):1-1.
2. <https://www.pib.gov.in/PressReleaseDetail.aspx?PRID=2225415®=6&lang=1>
3. Farling PA. Thyroid disease. British Journal of Anaesthesia. 2000 Jul 1;85(1):15-28.
4. Lekurwale V, Acharya S, Shukla S, Kumar S, Lekurwale VY. Neuropsychiatric manifestations of thyroid diseases. Cureus. 2023 Jan 20;15(1).
5. Ma LY, Zhao B, Ou YN, Zhang DD, Li QY, Tan L. Association of thyroid disease with risks of dementia and cognitive impairment: A meta-analysis and systematic review. Frontiers in Aging Neuroscience. 2023 Mar 13;15:1137584.
6. Razvi S. The public health burden of diabetes mellitus and thyroid disease: twin epidemics. Nature Reviews Endocrinology. 2026 Jan 8:1-3.
7. Vargas-Uricoechea H. Autoimmune thyroid disease and differentiated thyroid carcinoma: A review of the mechanisms that explain an intriguing and exciting relationship. World Journal of Oncology. 2023 Dec 9;15(1):14.
8. Surks MI, Ortiz E, Daniels GH, Sawin CT, Col NF, Cobin RH, Franklyn JA, Hershman JM, Burman KD, Denke MA, Gorman C. Subclinical thyroid disease: scientific review and guidelines for diagnosis and management. Jama. 2004 Jan 14;291(2):228-38.
9. Fang L, Ning J. Recent advances in gut microbiota and thyroid disease: pathogenesis and therapeutics in autoimmune, neoplastic, and nodular conditions. Frontiers in cellular and infection microbiology. 2024 Dec 24;14:1465928.
10. Klein I, Danzi S. Thyroid disease and the heart. Circulation. 2007 Oct 9;116(15):1725-35.
11. Poppe K, Velkeniers B, Glinooer D. Thyroid disease and female reproduction. Clinical endocrinology. 2007 Mar;66(3):309-21.
12. Fitzpatrick DL, Russell MA. Diagnosis and management of thyroid disease in pregnancy. Obstetrics and Gynecology Clinics. 2010 Jun 1;37(2):173-93.
13. Streetman DD, Khanderia U. Diagnosis and treatment of Graves disease. Annals of Pharmacotherapy. 2003 Jul;37(7-8):1100-9.