

RESEARCH ARTICLE

KAP Study on Thyroid Disorders (Hypothyroidism and Hyperthyroidism) in a Tertiary Care Hospital

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ABSTRACT:

OBJECTIVE: The purpose of this study is to assess health information seeking behavior and knowledge among patients thereby enhancing patient compliance and awareness.

METHODOLOGY: This study which includes the prospective study with the total of 101 patients diagnosed with hyperthyroidism and hypothyroidism were included in the study. A detailed questionnaire was prepared to assess the knowledge, attitude and practices in patients who have been previously diagnosed to have thyroid disorders and who are on treatment. The patients were interviewed in their language using a validated questionnaire. Statistical analysis was assessed using mean, standard deviation and t-test.

RESULTS: A total of 101 female patients were enrolled in this study 91 patients were diagnosed hypothyroidism, 10 patients were diagnosed hyperthyroidism. which the age groups were in a range of above 20. High prevalence was observed in an age group of 50-60, patients 26 (28.50%) for hypothyroidism. High prevalence was observed in the age group of 50-60, patients 4 (40%) for hyperthyroidism. The study revealed that about 79.2% of the patients diagnosed with thyroid disorder had other comorbid conditions.

CONCLUSION: General awareness about thyroid disease is poor with more than half of the population having incorrect knowledge, beliefs and practices. The understanding level of the patients towards thyroid disorder was improved after counselling (patient education) when compared to the assessment taken before counselling. The health care Professionals should focus not only on medication and dose adjustment but also on patient education. This study suggests that a good knowledge and awareness towards the condition increases the patient compliance towards medications and regular follow up.

KEYWORDS: Knowledge, Attitude, Practice, Hypothyroidism, Hyperthyroidism.

INTRODUCTION:

Thyroid diseases are, arguably, among the commonest endocrine disorders worldwide. According to a projection from various studies on thyroid disease, it has been estimated that about 42 million people in India suffer from thyroid diseases.^[1]

The results of the National Health and Nutrition Examination Survey (NHANES) showed higher levels of thyroid stimulating hormone (TSH) concentration and more prevalent positivity of anti-thyroid antibodies in women which increased with age.^[2]

The prevalence and incidence of thyroid disorders depend on geographic areas, increasing age, ethnicity, and most importantly the amount of iodine intake of the population.^[3]

Hypothyroidism is one of the most common forms of thyroid dysfunction^[4]. It is defined as failure of the thyroid gland to produce sufficient thyroid hormone to meet the metabolic demands of the body^[2]. It may be congenital or acquired, primary or secondary, chronic or transient^[5]. It refers to a state that results in a deficiency of thyroid hormones, including hypothalamic or pituitary disease and generalized tissue resistant to thyroid hormone, and disorders that affects the thyroid gland directly.^[2]

The signs and symptoms of hypothyroidism are nonspecific and may be confused with those of other clinical conditions, especially in postpartum women and the elderly.^[6]

Infants and children may present more often with lethargy and failure to thrive. Women who have hypothyroidism may present with menstrual irregularities and infertility. In older patients, cognitive decline may be the sole manifestation.^[7] Patients with severe hypothyroidism generally present with a group of signs and symptoms that may include lethargy, weight gain, hair loss, dry skin, forgetfulness, constipation and depression.^[6]

Hyperthyroidism is also known as thyrotoxicosis. It is characterized by hyper metabolism and elevated serum levels of free thyroid hormones. There is enlargement of the thyroid gland and exophthalmos (bulging eyes). The prevalence of hyperthyroidism in community-based studies has been estimated at 2 percent for women and 0.2 percent for men. As many as 15 percent of cases of hyperthyroidism occur in patients older than 60 years.^[9] Symptoms are related to the thyroid hormone's stimulation of catabolic enzymopathic activity and catabolism, and enhancement of sensitivity to catecholamines. Older patients often present with a paucity of classic signs and symptoms, which can make the diagnosis more difficult.^[7] Thyroid storm is a rare presentation of hyperthyroidism that may occur after a stressful illness in a patient with untreated or undertreated hyperthyroidism and is characterized by delirium, severe tachycardia, fever, vomiting, diarrhea, and dehydration.^[8]

Typical clinical features will invariably be borne out by a TFT, which will usually show raised FT4 and FT3 and barely detectable TSH.^[8]

Treatment depends on the cause and severity of the disease, the patient's age, goiter size, comorbid conditions and treatment preferences. Treatment includes pharmacotherapy, radioactive iodine and surgical treatment.^[9]

MATERIALS AND METHODS :

This study was conducted in tertiary care hospital, Chennai. A total of 101 patients were evaluated during the period of 10 months. Female Patients of age groups above 20 years with hypothyroidism and hyperthyroidism were included in the study. The study was conducted after the ethical committee clearance. Informed consent was obtained from the respective patients.

A detailed questionnaire was prepared to assess the knowledge, attitude and practices in patients who have been previously diagnosed to have thyroid disorders and who are on treatment. The patients were interviewed in their language using a validated questionnaire.

Statistical analysis was performed using mean, standard deviation and the significance difference was obtained using t-test.

RESULTS:

The patients were classified according to thyroid status as hypothyroidism and hyperthyroidism. A total of 101 female patients were enrolled in this study 91 patients were diagnosed hypothyroidism, 10 patients were diagnosed hyperthyroidism. which the age groups were in a range of above 20 . High prevalence was observed in an age group of 50-60, patients 26(28.50%) (TABLE 1) for hypothyroidism. High prevalence was observed in the age group of 50-60, patients 4(40%) (TABLE 2) for hyperthyroidism. The study revealed that about 79.2% of the patients diagnosed with thyroid disorder had other comorbid conditions. The mean knowledge, attitude and practice for hypothyroidism and obtained initially were 1.28, 3.93 ,1.97 and After intervention the score for were 2.13, 4.78, 3.03.(Table 3) The mean knowledge, attitude and practice for hyperthyroidism respectively 2.54, 5.63 ,3.45 and After intervention the score for were 4.9, 8.72, 5.27(TABLE 4) which was significantly higher with improved knowledge, attitude and practice (p value< 0.05). The mean difference for hypothyroidism was found to be 2.74 ± 0.19 and for hyperthyroidism 4 ± 0.58.

TABLE 1-AGE BASED POPULATION DISTRIBUTION (HYPOTHYROIDISM)

Age Group	No. of patients(n=91)	Percentage (%)
20-30	10	10.90%
30-40	12	13.10%
40-50	23	25.20%
50-60	26	28.50%
Above 60	20	21.95%

TABLE 2-AGE BASED POPULATION DISTRIBUTION (HYPERTHYROIDISM)

Age Group	No. of subjects(n=10)	Percentage (%)
40-50	3	30%
50-60	4	40%
Above 60	3	30%

TABLE 3-COMPARISON OF KAP SCORE IN HYPOTHYROID PATIENTS

CATEGORY	Before counselling	After counselling
Knowledge	1.28	2.13
Attitude	3.93	4.78
Practice	1.97	3.03

TABLE 4-COMPARISON OF KAP SCORE IN HYPERTHYROID PATIENTS

CATEGORY	Before counselling	After counselling
Knowledge	2.54	4.90
Attitude	5.63	8.72
Practice	3.45	5.27

DISCUSSION:

The goal of study was to assess the knowledge, attitude and practice scores of thyroid (hypothyroid and hyperthyroid) patients before and after counselling. Patient education is core key to achieve correct therapeutic outcome and bring vivid change in treatment. Improved knowledge shows positive effect on patients' attitude level along with this patient will get better practice.

In this study knowledge score for hypothyroidism and hyperthyroidism before counselling patients was found to be 1.28 and 2.54. Whereas after counselling knowledge scores were increased and was found to be 2.13 and 4.9. The majority of the participants enquired about hypothyroidism only when medical or other complications arise. Majorities were satisfied with the education they received; however, they did not know if the information they received was reliable/ credible.

Thyroid disorder screening should be a part of their routine health screen after the age of 35 years, pre and postmenopausal women, child bearing women and pregnancy and post-partum period.

In this study high incidence of about 28.5% was found in the age group of 50-60. However, many studies suggested the prevalence of hypothyroidism is higher in elderly in the community.

CONCLUSION:

General awareness about thyroid disease is poor with more than half of the population having incorrect knowledge, beliefs and practices. The understanding level of the patients towards thyroid disorder was improved after counselling (patient education) when compared to the assessment taken before counselling. The health care Professionals should focus not only on medication and dose adjustment but also on patient education. This study suggests that a good knowledge and awareness towards the condition increases the patient compliance towards medications and regular follow up.

Hence patient education or counselling should also be carried out along with the management of the disease condition.

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