Scholars Journal of Applied Medical Sciences (SJAMS)
Abbreviated Key Title: Sch. J. App. Med. Sci.
©Scholars Academic and Scientific Publisher
A Unit of Scholars Academic and Scientific Society, India
www.saspublishers.com

ISSN 2320-6691 (Online)
ISSN 2347-954X (Print)

Surgery

A Cross Sectional Study on Knowledge, Attitude and Practices among Patients; Suffering from of Primary Hypothyroidism

Dr. ThoratSukhadeo Lingaji[1],Dr. SheetalSarang Patil[2*]
[1]MS Surgery Assistant Professor Department of Surgery, SMBT Institute of Medical Sciences and Research Centre, Dhamangoan,Nashik, Maharashtra, India
[2]MS Surgery Assistant Professor Department of Surgery, SMBT Institute of Medical Sciences and Research Centre, Dhamangoan,Nashik,Maharashtra, India

Original Research Article

***Corresponding author**
Dr. SheetalSarangPatil

Article History
Received: 27.08.2018
Accepted: 08.09.2018
Published: 30.09.2018

DOI:
10.36347/sjams.2018.v06i09.033

Abstract: Thyroid disorders are believed to be a common health issue in India, as it is worldwide. However, there is a scarcity of data on the Knowledge, Awareness and Practices (KAP) among these patients. Aim: Knowledge, Attitude and Practices among patients; suffering from of primary hypothyroidism. Objectives: 1) To study knowledge, attitude and practice of patients suffering from primary hypothyroidism.2) To study treatment adherence of patients suffering from primary hypothyroidism Material and Methods: The present cross sectional study was conducted at tertiary care teaching of hospital of western Maharashtra; to study the KAP and treatment adherence of patients suffering from primary hypothyroidism. One hundred consecutive primary hypothyroidism participants, aged ≥18 years, who were on treatment for at least 3 months were included in the study to assess their KAP about the disease and adherence to treatment. In present study majority (71%) were the female's patients who were suffering from hypothyroidism. Out of all 79% participants were unaware of correct the meaning of thyroid word and 67% failed to identify major functions of thyroid gland. Considerable number of patients accepted (88%) that hypothyroidism has affected life style. Regarding adherence, 87% participants were found to adherent to their treatment. Conclusion: Present study reported gap in the knowledge, attitude and practice of patients suffering from primary hypothyroidism.

Keywords: Hypothyroidism, Knowledge, Attitude, Practice, Treatment Adherence.

INTRODUCTIONS

The world thyroid has Greek origin; which denotes shield shaped or oblong shield or literally door like an object. Thyroid gland is an endocrine gland located in the anterior aspect of neck in front of trachea. The important function of this gland is to produce sufficient amount of thyroid hormones (T3 and T4) which will primarily influence the metabolic rate and protein synthesis.1 Thyroid diseases are one of the common endocrine disease worldwide2. The global prevalence of spontaneous over hypothyroidism is in between 1% to 2%. It is 10 time more common in women than men while almost 3% men and 8% women have subclinical hypothyroidism.3 In India also, thyroid disorders are very common.4 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.5 The prevalence of overt hypothyroidism has been reported between 3.5% and 4.2% while subclinical hypothyroidism has been reported in 8.02%–19.3% of population in various studies across India.6,7

Hypothyroidism has adverse effect on health and wellbeing of a person. Even though, globally thyroid diseases are highly prevalent, they are most under diagnosed; neglected chronic health conditions.8 Information which is incomplete and obtained from unreliable sources may affect diseases management adversely.9-11 Patient's knowledge and awareness about the disease and its treatment is very important for good long-term outcome and compliance in any chronic disease.

A knowledge, attitude, and practices (KAP) is a quantitative tool, based on a standardized questionnaire, which measures these domains in a predefined population. There is a paucity of data on the knowledge, awareness, and practices (KAP) among the primary hypothyroidism. Patients in the Indian population. With this background present cross

sectional study was conducted at tertiary care medical teaching hospital to assess the gaps in knowledge, awareness and practice of patients suffering from primary hypothyroidism.

OBJECTIVES

To study knowledge, attitude and practice of patients suffering from primary hypothyroidism.To study treatment adherence of patients suffering from primary hypothyroidism.

MATERIALS AND METHODS

Institutional Ethical Committee's permission (IEC) was obtained before starting of the study. The present cross sectional study was conducted at tertiary care teaching of hospital of western Maharashtra; to study the KAP and treatment adherence of patients suffering from primary hypothyroidism. Adult patients (> 18 years) suffering from primary hypothyroidism since more than three months were included in the study. Newly diagnosed patients, hypothyroidism secondary to pituitary/hypothalamic diseases, radioiodine ablation, surgery, neck irradiation, and drugs and those who not willing to give informed consent were excluded. Patients with transient hypothyroidism, mentally challenge patients were also excluded from study. A structured questionnaire was used to collect the information. A pilot study was done for validation, practicality and applicability of KAP12 questionnaire. It was carried out using predesigned questionnaire among 10 patients attending out patients department for follow up. According to answers obtained and difficulties faced during pilot study, rectification was done and questionnaire modified accordingly. Considering 51.2%3correct knowledge about the term.

Hypothyroidism from previous study, at 5% level of significance and using 10% absolute precision the required sample size was calculated using following formula;

$$n = Z^2(1-\alpha/2)(1-P)/ d^2$$

Where n = sample size

Z =statistic for a level of confidence, for the level of confidence of 95%, Z value is 1.96 P = 51.2%, correct knowledge about term hypothyroidism3 d = absolute precision (10%=0.1)
n = {1.96×1.96×0.5}/(0.1)2

Total calculated sample size was 96, which were rounded of to 100. Purposive sampling method was used to recruit patients in the study. Study questionnaire consisted two parts. In part I, socio-demographic data was recorded and information of KAP was recorded in part II of the questionnaire.

Adherence to T4 therapy was assessed by asking the patients the number of doses missed in the last 1 month and was categorized as follows13

- Adherent to treatment: Missed <5% dose in the last 1 month
- Moderately adherent to treatment: Missed ≥5% but <15% dose in the last 1 month
- Non-adherent to treatment: Missed ≥15% dose in the last 1 month.

STATISTICAL ANALYSIS

After data collection questionnaires were checked for their completeness and data entry and coding was done in Microsoft excel. Descriptive and inferential analysis like mean, standard deviation, and Chi-square test were used for the analysis.

OBSERVATION AND RESULTS

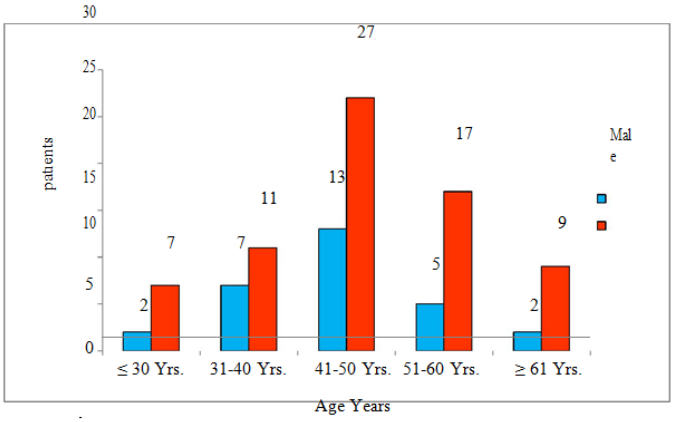
The present study was conducted in patients; attending out patients department (OPD) of tertiary care teaching hospital for follow up treatment. Total 100 patients participated in present study. The mean age of the participants was 46.04 ± 17.67. As per gender wise distribution 29% were males and 71% were females. (Table 01) Majority of the participants were belonged to the age group between 41-50 years (40.0%). (Graph 01) Table 02 summarizes the response given to questions of knowledge domain by all the participants. A fair number of patients (77%) had correct knowledge about the meaning of hypothyroidism, Out of all, 79% participants were unaware of the correct meaning of thyroid word and 67% failed to identify major functions of thyroid gland. Most of the participants had correct knowledge about the symptoms (66%) of hypothyroidism and role of giotrogenic food (70%) in thyroid disorders.

Regarding attitude table 3; out of all 100 respondents 67% and 79% were ready to follow dietary restriction and reduce the weight, respectively. A significant number of patients accepted (88%) that hypothyroidism has affected their life style. Only 51% patients considered, hypothyroidism required regular follow up and 27% believed that alternative medicine can cure hypothyroidism.

Regarding practice table 4, dietary restriction routinely followed by 67% of participants, and only 47% and 40% patients regularly does exercise to reduce weight and consult physician respectively. Seventeen percent were taking "alternative medicine" along with routine medication to cure hypothyroidism. Regarding adherence, 87% participants were adherent to treatment, 07% and 06% were moderately adherent and non-adherent to treatment respectively.

Table-01: Age and gender wise distribution of the participants (n=100)

Sr. No.	Age groups (Yrs)	Gender		Total
		Male	Female	
	≤ 30 Yrs.	02	07	09 (09.0%)
	31-40 Yrs.	07	11	18 (18.0%)
	41-50 Yrs.	13	27	40 (40.0%)
	51-60 Yrs.	05	17	22 (22.0%)
	≥ 61 Yrs.	02	09	11 (11.0%)
	Total	29 (29.0%)	71 (71.0%)	100 (100%)



Graph-01: Age & gender wise distribution

Table-02: Distribution of the participants according to knowledge (n=100)

Sl. No.	Questions on Knowledge	Response	
		Correct (%)	Wrong (%)
1.	Meaning of word thyroid	21 (21.00%)	79 (79.00%)
2.	Functions of thyroid gland	33 (33.00%)	67 (67.00%)
3.	Meaning of word hypothyroidism	77 (77.00%)	23 (23.00%)
4.	Symptoms of hypothyroidism	66 (66.00%)	34 (34.00%)
5.	Does hypothyroidism is hereditary disorder?	27 (27.00%)	73 (73.00%)
6.	Does hypothyroidism contagious disorder?	80 (80.00%)	20 (20.00%)
7.	Does hypothyroidism affects menstruation?	60 (60.00%)	40 (40.00%)
8.	Hypothyroidism may be a risk factor for depression	27 (27.00%)	73 (73.00%)
9.	Hypothyroidism may be a risk factor for Infertility	36 (36.00%)	64 (64.00%)
10.	Cabbage, cauliflower, soya products affects thyroid	70 (70.00%)	30 (30.00%)

Table-03: Distribution of the participants according to knowledge attitude (n=100)

Sr.No.	Questions on Attitude	Response	
		Yes	No
1.	Does hypothyroidism has affected your life style?	88 (88.00%)	22 (22.00%)
2.	Are you ready follow dietary restriction?	67 (67.00%)	33 (33.00%)
3.	Are you ready reduce weight?	79 (79.00%)	21 (21.00%)
4.	Does hypothyroidism required regular follow up?	51 (51.00%)	49 (49.00%)
5.	Alternative medicine can cure hypothyroidism	27 (27.00%)	73 (73.00%)

Table-04: Distribution of the participants according to practice (n=100)

Sr.No.	Questions on Practice	Response	
		Yes	No
1.	Do you follow dietary restriction?	67 (67.00%)	33 (33.00%)
2.	Do you exercise daily to reduce/maintain weight?	47 (47.00%)	53 (53.00%)
3.	Do you take any alternative medicine as treatment?	17 (17.00)	83 (83.00%)
4.	Do you consult physician regularly?	40 (40.00%)	60 (60.00%)
5.	Do you take medication regularly?	87 (87.00%)	13 (13.00%)

DISCUSSION

The present observational cross-sectional study was conducted at tertiary care teaching hospital to assess the knowledge, attitude, practice and treatment adherence in patients suffering from primary hypothyroidism. In general many previous studies have reported that the patients with thyroid disorder had inadequate knowledge of thyroid gland and associated disorders. In this study total 100 patients were recruited after informed consent. Among all participants the proportion of female and male was 71% (71) and 29% (29) respectively. In a study conducted by Sethi*et al*. [14] females were 72.4% (362) and males were 27.6% (138). The mean age of the participants was 46.04 ± 17.67 and maximum were from 41-50 years (40.0%) of age group. Somewhat similar mean age (43.0 ± 13.6) of the respondent was seen in the study conducted by Sethi*et al*.[14].

Regarding knowledge, in our study 79% participants were unaware about the meaning of thyroid word. In a study conducted by Singh A *et al*.4 36% participants had no knowledge about the meaning, while only 5.4% were participants were unaware about correct the meaning of thyroid in a study conducted by Sethi*et al*. [14]. In present study fair number of patients (77) was aware bout the correct meaning of term hypothyroidism. Comparatively less number (51.2%) of participants from Delhi study3 were aware about the correct meaning. In present study; poor knowledge was observed to the questions like; whether or not hypothyroidism is a hereditary disorder? does hypothyroidism has any effect on infertility? And does hypothyroidism has a role in depression?

In present study good attitude of patients was seen because majority of the participants were ready to follow dietary restriction and to reduce weight. Large number of participants had accepted that hypothyroidism has affected their life style. Sethi*et al*. [14] reported that most of the patients (68%–91%) had agreement on all the statements in the attitude domain. In his study highest agreement (91.4%) was found for the statement treatment for hypothyroidism should be initiated after consultation with a physician only. In present study almost half of the patients believed that for hypothyroidism regular follow up do not required; and somewhat similar number of patients believed that regular follow up treatment do required. In present study 27% participants believed that alternative medicine may cure hypothyroidism; somewhat similar percentage was seen in a study conducted by Singh A *et al.* [4].

Regarding practice, considerable proportions (67%) of participants were following dietary guidelines but less number of patients was doing exercise to reduce weight. Numbers of patients who regularly consult physician were less. In present study 17% of patients were taking alternative medicine as a treatment for hypothyroidism along with routine medication. Comparatively high proportions (33%) of individuals were taking alternative medicine along with hypothyroidism medication in a study conducted by Sethi B *et al*.[14].

In present study 87% participants were adherent to their treatment, Kumar P *et al*.[3] reported 90.4% of treatment adherence in his study

CONCLUSION

Present study reported gap in the knowledge, attitude and practice of patients suffering from primary hypothyroidism.

REFERENCES

1. Alotaibi AM, Almousa AI. Survey of Awareness of Thyroid Disorders among the Riyadh Population, Central Region of Saudi Arabia. The Egyptian Journal of Hospital Medicine. 2018;72(02):4039-44
2. Unnikrishnan AG, Menon UV. Thyroid disorders in India: An epidemiological perspective. Indian journal of endocrinology and metabolism. 2011;15(2):78-81
3. Kumar P, Khandelwal D, Mittal S, Dutta D, Kalra S, Katiyar P, Aggarwal V. Knowledge, awareness, practices and adherence to treatment of patients with primary hypothyroidism in Delhi. Indian journal of endocrinology and metabolism. 2017 May;21(3):429.
4. Singh A, Sachan B, Malik NP, Sharma VK, Verma N, Singh CP. Knowledge, awareness and practices among patients of thyroid swelling attending cytology clinic in a medical college, Meerut. Indian journal of clinical practice. 2014;24(8):753-755
5. Maheshwari P, Mohan R, Shanmugarajan TS. KAP study on thyroid disorders (hypothyroidism and hyperthyroidism) in a tertiary care hospital. Research Journal of Pharmacy and Technology. 2017;10(1):41.
6. Marwaha RK, Tandon N, Ganie MA, Kanwar R, Sastry A, Garg MK, Bhadra K, Singh S. Status of thyroid function in Indian adults: Two decades after universal salt iodization. J Assoc Physicians India. 2012 Apr;60:32-6.
7. Kalra S, Kumar A, Jarhyan P, Unnikrishnan AG. Indices of thyroid epidemiology. Indian J EndocrinolMetabol. 2015;19:844-7.
8. Kalra S, Unnikrishnan AG, Sahay R. The global burden of thyroid disease. Thyroid Res Pract. 2013;10:89-90
9. Kannan S, Mukundan L, Mahadevan S, Sathya A, Kumaravel V, Bhat RV, Sriram U. Knowledge, Awareness and Practices (KAP) among patients with hypothyroidism attending endocrine clinics of community hospitals in Chennai. Thyroid Research and Practice. 2010 Jan 1;7(1):11.
10. DeMarco J, Nystrom M, Salvatore K. The importance of patient education throughout the continuum of health care. J Consum Health Internet 2011;15:22-31.

11. Adams RJ. Improving health outcomes with better patient understanding and education. Risk ManagHealthc Policy 2010;3:61-72.
12. Kaliyaperumal K. Guideline for Conducting a Knowledge, Attitude and Practice (KAP) Study. Community Opthalmology 4(1):7-9
13. Mithal A, Dharmalingam M, Tewari N. Are patients with primary hypothyroidism in India receiving appropriate thyroxine replacement? An observational study. Indian J EndocrinolMetab. 2014;18:83-8.
14. Sethi B, Khandelwal D, Vyas U. A cross-sectional survey to assess knowledge, attitude, and practices in patients with hypothyroidism in India. Thyroid Res Pract. 2018;15:15-22