



ISSN Print: 2394-7500
ISSN Online: 2394-5869
Impact Factor: 5.2
IJAR 2019; 5(3): 107-110
www.allresearchjournal.com
Received: 22-01-2019
Accepted: 24-02-2019

Dr. Aadil Bashir Rather
Medical Officer, Directorate of Health Services Kashmir, Jammu and Kashmir, India

Dr. Rouf Hussain Rather
Medical Officer, Directorate of Health Services Kashmir, Jammu and Kashmir, India

Dr. Insha Latif
Registrar GMC Srinagar, Jammu & Kashmir, India

Dr. Mohsin Rashid
Senior Resident SKIMS Medical College, Srinagar, Jammu & Kashmir, India

Dr. Ashaq Hussain Paray
Lecturer GMC Srinagar, Jammu & Kashmir, India

Knowledge, awareness and practices (KAP) among patients of hypothyroidism in rural population: An observational study

Dr. Aadil Bashir Rather, Dr. Rouf Hussain Rather, Dr. Insha Latif, Dr. Mohsin Rashid and Dr. Ashaq Hussain Paray

Abstract

Introduction: Hypothyroidism is defined as deficient production of thyroid hormone by the thyroid gland. There is a paucity of data on the Knowledge, Awareness and Practices (KAP) among patients of hypothyroidism and improving patient's knowledge through education increases compliance with health-care appointments and medications which improves the outcome.

Materials and Methods: This study was conducted in the Outpatient Department of two peripheral hospitals of Kashmir viz. district hospital Kulgam and emergency hospital Qazigund from April 2017 to December 2018. Adult patients with hypothyroidism for more than 3 months were taken for the study after getting formal consent. A well-structured questionnaire was used to check their Knowledge, Awareness and Practices (KAP) with respect to hypothyroidism and adherence of treatment. Results and observations A total of 260 participants completed the questionnaire. 88 (35.2%) participants were aware of correct meaning of the term thyroid. Similarly, only (51.2%) participants were aware about correct meaning of the term hypothyroidism. weight gain (90.6%), easy fatigability (88%), irregular menstrual cycle (38%), infertility (30%), constipation (55.2%), excessive hair fall (47.0%), skin problems (30%) depression (10%) were the major symptoms. 53 (20.4%) participants believed that calcium supplements alone can cure hypothyroidism, 166 (64%) believed that iodized salt can be used to treat hypothyroidism while. 183 (70.4%) believed that cabbage, cauliflower, and soya products should be avoided by patients with hypothyroidism. 125 (48%) participants felt that T4 can be stopped once lab reports return to normal level while 179 (68.8%) participants felt thyroxin needs to be stopped for few days before repeating TSH on follow up.

Discussion: Knowledge awareness and practices (KAP) about chronic diseases is very important for better long term outcome. In general, the patients with thyroid disorders have inadequate knowledge of thyroid gland and hypothyroidism. Our study shows that a large number of patients with primary hypothyroidism lack basic knowledge about the disease.

Conclusion: Knowledge awareness and practices (KAP) about hypothyroidism is lacking a lot in our population which causes a lot of inconvenience in patient management and prevention of morbidity. Therefore, an aggressive campaign is required to make the community, health workers, doctors, dieticians and policy makers aware of hypothyroidism and its consequences and try to decrease the misconceptions and increase awareness.

Keywords: Hypothyroidism; knowledge; attitude

1. Introduction

Hypothyroidism is defined as deficient production of thyroid hormone by the thyroid gland. It can be due abnormality in thyroid gland itself known as primary hypothyroidism or as a result of hypothalamic or pituitary disease known as secondary hypothyroidism. Primary hypothyroidism is the most common type. Hypothyroidism can be subclinical or overt. In subclinical hypothyroidism there is an elevated thyroid-stimulating hormone (TSH) concentration in the presence of normal serum free thyroxine (T4) and triiodothyronine (T3) concentrations^[1]. The prevalence of hypothyroidism worldwide is 4-5%^[2] and in India it is around 3.9-5.4%^[3, 4]. Prevalence of subclinical hypothyroidism is around 8.02%-19.3% as per various studies across India^[5, 6]. There is a paucity of data on the Knowledge, Awareness and Practices (KAP) among patients of hypothyroidism and improving patient's knowledge through education increases compliance with health-care appointments and medications

Correspondence
Dr. Aadil Bashir Rather
Medical Officer, Directorate of Health Services Kashmir, Jammu and Kashmir, India

which improves the outcome. The present study was planned to assess KAP and adherence of treatment of patients with primary hypothyroidism.

2. Materials and Methods

This study was conducted in the Outpatient Department of two peripheral hospitals of Kashmir viz. district hospital kulgam and emergency hospital Qazigund from April 2017 to December 2018. Adult patients with hypothyroidism for more than 3 months were taken for the study after getting formal consent. Patients having hypothyroidism due to iatrogenic causes (drugs, surgery, radiation), patients of secondary hypothyroidism, patients of dementia and the psychiatric patients who could not respond to questionnaire were excluded from the study. A well-structured questionnaire was used to check their Knowledge, Awareness and Practices (KAP) with respect to hypothyroidism and adherence of treatment. The questionnaire covered issues such as meaning of medical terms "thyroid," and "hypothyroidism," patient's knowledge about the basis of the treatment, monitoring during treatment, correct method of medication intake and belief in alternative medications, common beliefs and misconceptions about hypothyroidism, and common symptoms perceived by patients related to Hypothyroidism. Adherence to T4 therapy was assessed by asking the patients the number of doses missed in the last 1 month and was categorized as follows:

- Adherent to treatment: Missed <15% dose in the last 1 month
- Nonadherent to treatment: Missed ≥15% dose in the last 1 month

3. Results and observations

A total of 260 participants completed the questionnaire. The baseline demographic parameters of participants are

summarized {Table 1}. (75.4%) participants were female. The mean age of the participants was 41.24 ± 10.80 years. Majority of participants belonged to the age group between 30and 50 years (58.1%). Only 88 (35.2%) participants were aware of correct meaning of the term "thyroid" Similarly, only (51.2%) participants were aware about correct meaning of the term "hypothyroidism." 45(18%) participants referred to "hypothyroidism" neck swelling. Symptoms perceived related to hypothyroidism were weight gain (90.6%), easy fatigability (88%), irregular menstrual cycle (38%), infertility (30%), constipation (55.2%), excessive hair fall (47.0%), skin problems (30%)depression (10%){table 2}. Regarding misconception and treatment {table3}, 53 (20.4%) participants believed that calcium supplements alone can cure hypothyroidism, 166 (64%) believed that iodized salt can be used to treat hypothyroidism while. 183 (70.4%) believed that cabbage, cauliflower, and soya products should be avoided by patients with hypothyroidism. 125 (48%) participants felt that T4 can be stopped once lab reports return to normal level while 179 (68.8%) participants felt thyroxin needs to be stopped for few days before repeating TSH on follow up. Regarding conception,52 (20%) participants thought that hypothyroid women cannot conceive,137 (52.8%) thought they can conceive, while remaining 69 (29.6%) were not sure about it.120 (46.4%) participants knew correctly that T4 needs to be continued during pregnancy while as only 7 (2.7%) people knew that dosage needs to be increased in pregnancy. A fair number of participants (22.8%) did not follow the correct method of T4 administration with respect to meal; 30.4% participants were not keeping minimum 30 min gap between T4 and meal; while 2.4% were taking T4 either with meals or after meals. Regarding adherence, 227 (87.4%) participants were adherent remaining33 (12.6%) participants were non-adherent to T4.

Table 1: General Characteristics of patients

Sex		Age			Educational status				
Male	Female	<30yrs	30-50yrs	>50yrs	Illiterate	Up to 10th class	Graduate	Postgraduate	Professional
64(24.6%)	196(75.4%)	60(23.1%)	151(58.1%)	43(16.6%)	70(26.9%)	94 (36.1%)	57(21.9%)	26(10%)	13(5%)

Table 2: Symptoms of Hypothyroidism

Symptom	No of patients
weight gain	235 (90.6%),
fatigability	229 (88%),
irregular menstrual cycle	99 (38.0%),
Infertility	78 (30%),
constipation	143 (55.2%),
excessive hair fall	122 (47.0%),
skin problems	78 (30%)
depression	26 (10%)

Table 3: Common Misconceptions Regarding Hypothyroidism

	Question	Yes	No	No idea
1	Avoid non-vegetarian diet	121(46.5%)	79 (30.5%)	60 (23%)
2	Thyroid medications should be stopped during pregnancy	70 (27%)	120 (46.%)	70 (27%)
3	Thyroid medications can be stopped once thyroid tests are normal	125 (48%)	111 (42.6%)	24(9.2%)
4	Thyroid deficiency can be treated using iodized salt	166 (64%)	52 (20.0%)	42 (16%)
5	Calcium supplements can cure hypothyroidism alone	53 (20.4%)	141 (54.2%)	66 (25.4%)
6	Thyroxine stopped before Repeating TSH	179 (68.8%)	65 (25.%)	16 (6.1%)
7	Dosage needs change in pregnancy	7 (2.7%)	117 (45%)	136 (53.3%)

4. Discussion

Knowledge awareness and practices (KAP) about chronic diseases is very important for better long term outcome. In general, the patients with thyroid disorders have inadequate knowledge of thyroid gland and hypothyroidism. Our study shows that a large number of patients with primary hypothyroidism lack basic knowledge about the disease. These findings are similar to those obtained by previous authors^[7, 8] Large number of patients have dietary as well as treatment related false beliefs. In Kannan *et al.* study^[9], 79.41% and 55.88% participants knew correct meaning of the terms “thyroid” and “hypothyroidism,” respectively where as in our study it was observed in 35.2% and 51.2% respectively. Similarly, in a study by Singh^[10] *et al.*, 60% patients knew the correct meaning of the term “thyroid.” This difference could be related to educational status and limited accesses to literature. There is a common misconception of excessive weight gain and obesity with hypothyroidism. In study conducted by Singh A *et al.*^[10] there were 79.5% responses for excessive weight gain in case of hypothyroidism and 70 % in the study conducted by S Kannan *et al.* While as weight gain was seen in 90.6 % in our study which can be related to the disbelief that our community people have about the disease, while it is well known that primary hypothyroidism does not cause an increase in weight of more than 2-3 kg although a symptom of “feeling heavy” is common among patients^[11]. Patients should be educated for the various symptoms of thyroid disorders. Patients need to be educated that thyroid medication should not be stopped during pregnancy and iodine deficiency is not the only cause of hypothyroidism. Patients should also be educated for TSH follow up for treatment monitoring and long-term nature of treatment.

Factors that contribute to lack of knowledge among patients especially in developing countries are:

- a. Lack of qualified physicians.
- b. Low doctor and patients' ratio that lead to less time spent by doctors on patients' education.
- c. Illiteracy due to which patients are unable to extract information available in electronic and print media.

Hypothyroidism is a common cause of infertility which can be easily managed by correcting the hypothyroid state.^[12] Inadequate knowledge about pregnancy and hypothyroidism has created a lot of misconception about infertility, dosage and treatment monitoring in patients and their relatives which can be easily appreciated from our study. Lot of awareness is still required at physician level in developing countries like India for optimum management of hypothyroid patients besides social campaign.^[13] Better knowledge and awareness regarding the disease in primary hypothyroid patients and their relatives can significantly improve compliance of treatment and decrease the associated morbidity^[14]. In present study around 38% of females had irregular menstrual cycle which was also observed in the study conducted by Nimmy N.J *et al.*^[14] 27% patients answered that thyroid medication could be taken during pregnancy. According to study conducted by Singh A *et al.*^[10]. Seventy four patients (37%) had belief that thyroid medication should be stopped during pregnancy. It was observed that 48.0% of our patients responded that thyroid medication could be stopped once thyroid test report becomes normal while as per study conducted by Singh A *et al.*^[10] 40% thought that thyroid medication can be stopped once thyroid test are normal.

5. Conclusion

Knowledge awareness and practices (KAP) about hypothyroidism is lacking a lot in our population which causes a lot of inconvenience in patient management and prevention of morbidity. Therefore, an aggressive campaign is required to make the community, health workers, doctors, dieticians and policy makers aware of hypothyroidism and its consequences and try to decrease the misconceptions and increase awareness.

6. References

1. Khandelwal D, Tandon N. Overt and subclinical hypothyroidism: Who to treat and how. Drugs. 2012; 72:17-33.
2. Ahmad N, Panthari M, Gupta A, Chandra P, Nafees S. Prevalence of Hypothyroidism among Patients of Meerut, Uttar Pradesh: A Hospital Based Study. Int J Med Sci Public Health. 2013; 2(3):539-542.
3. Unnikrishnan AG, Menon UV. Thyroid disorders in India: An epidemiological perspective. Indian J Endocrinol Metabol. 2011; 15(Suppl2): S78.
4. Shah SN, Joshi SR. Think Thyroid. J Assoc Physicians India, 2011; 59:15-20.
5. Marwaha RK, Tandon N, Ganie MA, Kanwar R, Sastry A, Garg MK *et al.* Status of thyroid function in Indian adults: Two decades after universal salt iodization. J Assoc Physicians India. 2012; 60:32-6.
6. Kalra S, Kumar A, Jarhyan P, Unnikrishnan AG. Indices of thyroid epidemiology. Indian J Endocrinol Metabol. 2015; 19:844-7.
7. Kannan S, Mukundan L, Mahadevan S, Sathya A, Kumaravel V, Bhat RV *et al.* Knowledge, awareness and practices (KAP) among patients with hypothyroidism attending endocrine clinics of community hospitals in Chennai. Thyroid Res Practice. 2010; 7:11-5.
8. Mallik AK, Anad K, Pandav CS, Achar DP, Lobo J, Karmarkar MG *et al.* Knowledge, beliefs and practices regarding iodine deficiency disorders among the tribals in Car Nicobar. Ind J Pediat. 1998; 65:115-20.
9. Kannan S, Mukundan L, Mahadevan S, Sathya A, Kumaravel V, Bhat RV *et al.* Knowledge, awareness and practices (KAP) among patients with hypothyroidism attending endocrine clinics of community hospitals in Chennai. Thyroid Res Pract. 2010; 7:11-5.
10. Singh A, Sachan B, Malik NP, Sharma VK, Verma N, Singh CP. Knowledge, awareness and practices (KAP) among patients with thyroid swelling attending Cytology Clinic in a Medical College, Meerut. Sch J Appl Med Sci. 2013; 1:793-5
11. ATA Patient Education Web Brochures. Thyroid and weight.
12. Davis LB, Lathi RB, Dahan MH. The effect of infertility medication on thyroid function in hypothyroid women who conceive. Thyroid. 2007; 17:773-777
13. Surana V, Aggarwal S, Khandelwal D, Singla R, Bhattacharya S, Chittawar S *et al.* A clinical practice pattern in the management of primary hypothyroidism among doctors from different clinical specialties in New Delhi. Indian J Endocrinol Metab. 2017; 21:165-177

14. Nimmy NJ, Aneesh PM, Narmadha MP, Udupi RH, Binu KM. A survey on the prevalence of thyroid disorder induced by demography and food habits in South Indian population. Indian J Pharm Pract. 2012; 5:49-50.