

Epidemiological study of 50 thyroiditis patients: A Hospital Based study

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ABSTRACT

Background: Thyroiditis runs a complete spectrum of disease from the potentially life threatening to the indolent, from hyperthyroidism to hypothyroidism, from localized to the diffuse disease. The prevalence of auto immune thyroiditis varies greatly according to sex, age and population. The aim of this study to find the incidence of the different type of thyroiditis in the community.

Material & Methods: This study consisting of 50 patients with detailed history, physical examination showing signs and symptoms attributed to thyroid illness. Patients were made aware of the study and consent was obtained. The detailed description of each patient regarding lesion and investigation was recorded in an individual case sheet.

Results: Maximum no. of cases were seen in the 21-30 years of age group (32%) followed by 31-40 years of age (28%). Thyroiditis was more common in female than male (4.5:1). In this series, maximum cases (34) had duration of symptoms between 4 to 8 months. In hashimoto's thyroiditis 52% consume iodized salt regularly and Reidel's thyroiditis patients had positive history for localized salt consumption.

Conclusion: We concluded that incidence of autoimmune thyroiditis was also significantly higher in iodized salt prophylaxis patients.

KeyWords: Thyroiditis, Iodized Salt, Incidence, Auto Immune Thyroid Disease.

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INTRODUCTION

Thyroid disorder or goitre in India is described in the Athara Veda of 1500 BC. And the Agurveda of Sushruta in 1400 BC., Hippocrates 400 BC, Galen 200 AD, Roger of Salesho 900AD and Marco polo 1271 AD.¹

Thyroiditis is a multi-faceted disorder. The various part of the disease generally had distinct clinical characteristics and unique histopathology. However because these features may overlap with those of other thyroidal and non-thyroidal disease they may be difficult to recognize.²

The term auto immune thyroid disease is used to define those conditions which are characterized by the presence of circulating antibodies and some times of immunologically competent cells capable of reacting with certain thyroid constituents. The auto immune thyroid disease therefore include grave's disease and those conditions which are variously called Hashimoto's thyroiditis.²

Thyroiditis runs a complete spectrum of disease from the potentially life threatening to the indolent, from hyperthyroidism to hypothyroidism, from localized to the diffuse disease. Nevertheless by careful evaluation and judicious testing the correct diagnosis and therapy can be established. The discovery of the thyroid antibodies circulating in the blood of the subjects

affected by chronic lymphocytic thyroiditis by Rott et al (1956)³. Since then lot of work is being in this field and going on continuously.

A lot of study is being done to study the epidemiological aspect of auto immune thyroiditis. The wide variation in the prevalence may reflect sampling problem, ethnic difference or technical factor. The prevalence of auto immune thyroiditis varies greatly according to sex, age and population.⁴ The aim of this study to find the incidence of the different type of thyroiditis in the community.

MATERIALS & METHODS

This study consisting of 50 patients with detailed history, physical examination showing signs and symptoms attributed to thyroid illness in Government RBM Hospital, Bharatpur, Rajasthan, India. Patients were made aware of the study and consent was obtained.

Inclusion Criteria: Patient suspected of having thyroid illness first time with sign and symptoms suggesting of thyroid involvement.

Exclusion Criteria: By history and physical examination suggesting any underlying previous thyroidal or non-thyroidal illness.

The detailed description of each patient regarding lesion and investigation was recorded in an individual case sheet.

RESULTS

Our study showed that the maximum no. of cases were seen in the 21-30 years of age group (32%) followed by 31-40 years of age (28%). Thyroiditis was more common in female than male (4.5:1). In this series, maximum cases (34) had duration of symptoms between 4 to 8 months (table 2).

Out of 33 of cases urban areas, maximum number (52%) cases

have history of regular iodine salt consumption. In rural areas, 17 cases studied, so far 11 patients do not consume iodized salt and 6 patients have positive history of iodized salt consumption (table 3). In hashimoto's thyroiditis 52% consume iodized salt regularly and Reidel's thyroiditis patients had positive history for localized salt consumption (table 4).

Table 1: Age –Sex distribution of Thyroiditis

Age (in years)	Male	Female	Total
11-20 yrs	1 (2%)	9 (18%)	10 (20%)
21-30 yrs	4 (8%)	12 (24%)	16 (32%)
31-40 yrs	1 (2%)	13 (26%)	14 (28%)
41-50 yrs	2 (4%)	7 (14%)	9 (18%)
51-60 yrs	1 (2%)	0 (0%)	1 (2%)
Total	9 (18%)	41 (82%)	50 (100%)

Table 2: Relationship between duration of symptoms and clinical impression

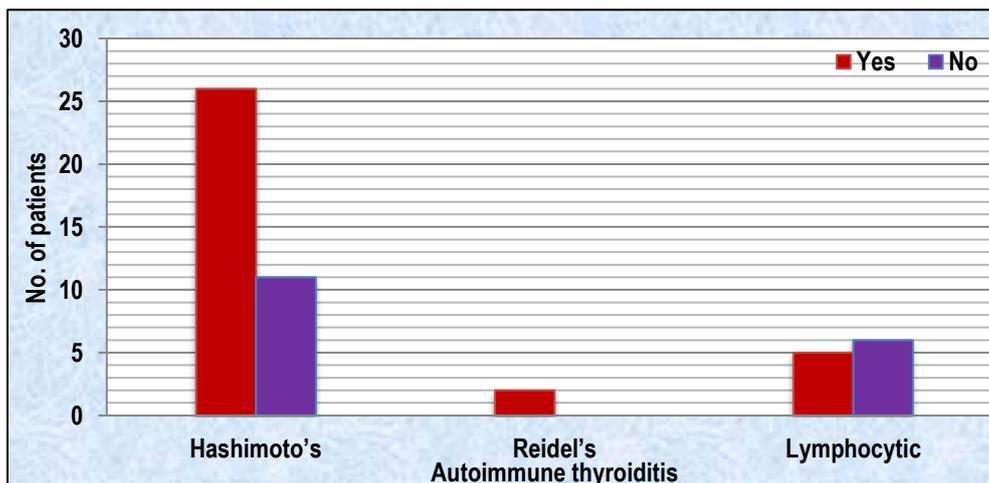
Duration (in months)	Hyperthyroid	Hypothyroid	Euthyroid
0-2	1 (2%)	0 (0%)	0 (0%)
2-4	2 (4%)	1 (2%)	3 (6%)
4-6	4 (8%)	6 (12%)	7 (14%)
6-8	3 (6%)	7 (14%)	7 (14%)
8-10	0 (0%)	0 (0%)	0 (0%)
10-12	2 (4%)	7 (14%)	0 (0%)
Total	12 (24%)	21 (42%)	17 (34%)

Table 3: Geographical distribution & Iodine Prophylaxis

Location	Use of Iodine Salt	
	Yes	No
Rural	6 (12%)	11 (22%)
Urban	26 (52%)	7 (14%)
Total	32 (64%)	18 (36%)

Table 4: Relationship between duration of symptoms and clinical impression

Use of iodine salt	Hashimoto's	Reidel's	Lymphocytic
Yes	26 (52%)	2 (4%)	5 (10%)
No	11 (22%)	0 (0%)	6 (12%)
Total	37 (74%)	2 (4%)	11 (22%)



Graph 1: Relationship between duration of symptoms and clinical impression

DISCUSSION

The present study showed that the maximum no. of cases were seen in the 21-30 years of age group (32%) followed by 31-40 years of age (28%). Similar results were obtained by Gita Jaya Ram et al (1985)⁵ found mostly cases belong to 31-40 years of age. A number of studies had been done in different parts of the world since last 1960 to 1975, also indicated the commonest age of presentation of autoimmune thyroiditis between 40 and 50 years. The peak incidence of the disease occurs 10-15 years later in male. The time that elapsed between first symptoms of thyroidal illness and the visit of the patient to the doctor is important factor. In present series out of 50 patients, 12 (24%) have symptoms of hyperthyroidism, 21 (42%) and 17 (34%) have symptoms of hypothyroidism and euthyroidism in initial presentation. Most of the patients presents after 4-8 months of the illness because this time is elapsed before thyromegaly is seen. There is no study till now to documented difference between rural and urban distribution of thyroiditis. However, there are many studies to document the racial variation of thyroiditis.

Sakinah et al (1993)⁶ in study of racial disparity in the prevalence of thyroid disorder during pregnancy found that 61% Indian, 28% Malay and 29% Chinese had prevalence of goitre because the serum TSH was significantly higher in Indian women. In present study out of 50 cases studied so far 17 cases (34%) belongs to rural population as compared to 33 (66%) cases from urban population. This may be due to increased awareness, higher education status, easy approach to higher centre by urban population as compared to rural one.

Gaiten et al (1991)⁷ found that 25% peoples with goiter were in developed countries in spite of iodine prophylaxis. Incidence of Hashimoto's thyroiditis in iodized salt prophylaxis patients was 52% as compared to 22% in non-iodized salt prophylaxis. Lymphocytic thyroiditis patients had hardly any difference. All patients (4%) of reidel's thyroiditis had iodine salt consumption regularly. So in case of thyroiditis thyroid gland may show variable clinical presentation and radioactive iodine uptake depending upon variable destruction of thyroid gland by autoimmune process and release of formed T4 and T3 into circulation and variable stage of recovery of thyroid gland. Gluck et al (1975)⁸, Klein et al (1982)⁹ and Woolf et al (1980)¹⁰ also clearly demonstrated these clinical presentation.

CONCLUSION

We concluded that incidence of autoimmune thyroiditis was also significantly higher in iodized salt prophylaxis patients. Hardly any

difference in incidence of thyroiditis in rural & urban areas and duration of symptoms were generally between 4-8 months.

REFERENCES

1. Pinchera A, Doniach D, Fenzi GF, Baschieri L. Autoimmune aspects of endocrine disorders. London, Academic press, 1980:57-72.
2. Levine SN; Current concepts of thyroiditis. Arch Intern Med 1983;143:1952-1956.
3. Roitto IM, Doniach D, Campbell PN, Hudson RV; Auto-antibodies in Hashimoto's disease (lymphadenoid goitre). Lancet 1956;II:820-821.
4. Hurley JR; Thyroiditis D, December 1977;24:4-68.
5. Jayaram G; Cytologic study of the solitary thyroid nodule: profile of 310 cases with his tologic correlation. Acta Cytol 1985; 29: 967-973.
6. Sakinah-SO, Khatid BA. Radial disparity in the prevalence of thyroid disorder during pregnancy. Ann Acd Med Sigapore,1993;22(4):563-6.
7. Gaiten E, Nelson NE. Endemic goitre and endemic thyroid disorder. World J Sing. 1991;15(2):205-15.
8. Gluck FB, Nusynowitz ML, Plymate S. Chronic lymphocytic thyroiditis, thyrotoxicosis and low radioactive iodine uptake: Report of four cases. N Engl J Med, 1975;293:624-628.
9. Klein I, Levey GS. Silent thyrotoxic thyroiditis. Ann Intern Med, 1982;96:242-244.
10. Wolf PD. Transient painless thyroiditis with hyperthyroidism: A variant of lymphocytic thyroiditis. Endocr Rev. 1980;1:411-420.

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