

Incidence of Primary and Secondary Thyrotoxicosis in Relation to age, sex and clinical presentation: a study at BVH Bahawalpur

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ABSTRACT

Aim: To study primary and secondary thyrotoxicosis in relation to age, sex, clinical and type of goiter.

Methods: This study was conducted at department of medicine, BVH, Bahawalpur from Jan, 2004 to Dec, 2005. A total of 34 patients with primary and secondary thyrotoxicosis were included in this study.

Results & Conclusion: Out of 34 patients, 12 (35.3%) patients are in 3rd decade and 9 (26.4%) were in 2nd decade with female predominance i.e. 70.6%. Diffuse toxic goiter was the most common type (70.6%)

Keywords: Thyrotoxicosis, sex, goiter.

INTRODUCTION

Goiter (from Latin guttur throat), defined as an enlargement of the thyroid, have been recognized since 2700 BC, even though the thyroid gland has not documented as such until the renaissance period¹. The thyroid gland and its diseases even though known to physician since the time of Hippocrates, still continues to evince great interest from the clinician and the pathologist. According to Willis, thyroid gland works on a state of continuous unrest having alternate periods of cellular activity and quantitude in response to various exogenous and endogenous stimuli hence it is not surprising that the gland suffers from the variety of diseases. Thyroid is the only endocrine gland visible to eye and palpable with the fingers when diseased².

The term hyperthyroidism and thyrotoxicosis are used interchangeably. The thyrotoxicosis refers to biochemical and physiological manifestations of excessive quantities of thyroid hormones irrespective of source of hormones. While hyperthyroidism, the term is applied if over production of hormones is by thyroid gland. The manifestations depend on the severity of the disease, age of the patient, presence or absence of extrathyroidal manifestations, and the specific disorder producing the thyrotoxicosis^{3,4}. The aetiology of Graves' disease still remains unclear. It is currently considered that Graves' disease is an autoimmune disorder in which polyclonal immunoglobulins activate thyroid stimulating hormone receptors on thyroid cell membrane⁵. A study was planned to see the age, sex, type, clinical presentations and complications in thyrotoxicosis patients attending the BVH Bahawalpur.

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METHODOLOGY

This study was conducted at department of medicine, BVH, Bahawalpur from Jan, 2004 to Dec, 2005. A total of 34 patients with primary and secondary thyrotoxicosis were included in this study. Blood samples of all patients were taken for T3, T4 & TSH. Age, gender, types and clinical presentation was noted on specially designed Performa. All the data was entered and analyzed by using SPSS 16.

RESULTS

Detail of results is given Tables, 1, 2, 3, 4 & 5. Thirty four patients with thyrotoxicosis were admitted in BVH Bahawalpur attached to QMC Bahawalpur from January 2004 to December 2005.

Table 1: Age distribution

Age (yrs)	n=	%age
11-20	3	8.8
21-30	9	26.4
31-40	12	35.3
41-50	8	23.6
51-60	2	5.9

Table 2: Sex distribution

Gender	n=	%age
Males	10	29.4
Females	24	70.6

Table 3: Type of goiter

Types	n=	%age
Diffuse toxic goiter	24	70.6
Toxic multi nodular goiter	8	23.6
Solitary toxic nodule	1	2.9
Thyroiditis	1	2.9

Table 4: Clinical presentation

Types	n=	%age
Palpitation	31	91.2
Tremors of hands	30	88.2
Anxiety	27	79.4
Weight loss	26	76.5
Dyspnoea	25	73.5
Heat intolerance	24	70.6
Increased sweating	23	67.6
Increased appetite	21	61.2
Hyperdefecation	15	44.4
Sleep disturbances	8	23.5

Table 5: Signs

Types	n=	%age
Swelling front of neck	34	100
Tachycardia	34	100
Tremors	30	88.2
Skin changes	26	76.5
Eye signs	9	26.5
Thyroid bruit	8	23.5

DISCUSSION

Thyrotoxicosis can occur in any age but most of the patients in present study were between 20-50 years of age. Peak incidence of thyrotoxicosis in our study is 3rd decade followed by 2nd decade. Thus thyrotoxicosis continues to affect the adult population. This correlates with the studies conducted by Bhandarkar et al (1968)⁶, Rastogi et al (1969)⁷. In this study, most of female patients were the victims of thyrotoxicosis as compared to male patients with male to female ratio of 1:2.4. These findings were in agreement with findings noted by Rastogi et al (1969)⁷ and Bhandarkar et al (1968)⁶. In our study, diffuse toxic goiter (Graves' disease) was the most common type of goiter i.e., 70.6%. Our study is consistent with the results of Bhandarkar et al⁶ and Rastogi et al⁷

showing majority with diffuse toxic goiter (Graves' disease) followed by toxic multinodular and solitary toxic nodule.

Palpation (91.7%), tremulousness of hands (88.2%), nervousness (79.4%) and weight loss (76.6%) were the most common symptoms recorded in the present study which are in agreement with other studies^{8,9}. All patients in our study had swelling in front of neck (goiter) and tachycardia and most had tremors of hands and skin changes. The present study is in favor of the studies by Bhandarkar et al⁶, Rastogi et al⁷ and Sridhar et al⁸.

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