FREQUENCY OF THYROTOXICOSIS IN FIFTY PATIENTS
PREVIOUSLY TREATED FOR ANXIETY NEUROSIS

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ABSTRACT

Objective: To determine the frequency of thyrotoxicosis in 50 consecutive patients presenting with anxiety as chief complaint, who have been previously treated with anxiolytics and anti-depressants.

Material and Methods: This prospective analytical study was conducted in the medical OPD of Hayatabad Medical complex Peshawar from Jan 2004 to June 2004. Patients with symptoms of palpitations, sweating, tremors, anorexia and weight loss and those experiencing periods of intense fear and who were previously treated with anxiolytics were included in the study. All those patients who had diagnosed thyroid disease, were being treated for thyroid disease or had undergone thyroid surgery or radioablation of thyroid gland were excluded. In addition patients who had anxiety with concomitant medical disease, as tuberculosis, hepatitis, diabetes or hypertension etc and those on anti-arrrhythmic drug amiodarone and interferon therapy for hepatitis were also excluded from the study.

After a detailed history and clinical examination, thyroid function tests, E.C.G was performed in all patients.

Results: Out of fifty patients, 35 (70%) patients were females and 15 (30%) were males. Age range was 20-45 years, with a mean of 32.5 ± 4.3 years. Eleven patients (22 %) were found to have thyrotoxicosis, the rest 39 (78%) were euthyroid and were labelled as primary anxiety disorder.

Conclusion: Thyrotoxicosis is a common cause of anxiety neurosis in patients treated with anxiolytics. It should be excluded before a diagnosis of anxiety disorder is made.

Key Words: Thyrotoxicosis, Anxiety Neurosis.

INTRODUCTION

Thyrotoxicosis usually presents with palpitations, tremors, anorexia, weight loss, menstrual irregularities and decreased libido; symptoms commonly seen with anxiety neurosis. Patients presenting with these symptoms are usually treated for anxiety with anti-depressants. Thyroid nodules occur in 4-15% of adult population and can be found in 90% of women over the age of sixty year.1 Graves disease accounts for 60-80% of thyrotoxicosis but the prevalence varies among populations, depending mainly on iodine intake i.e. high iodine intake is associated with an increased prevalence of Grave's disease.2 Features affecting the clinical presentation are the severity of thyrotoxicosis, duration of disease, individual susceptibility to excess thyroid hormones and the patients age. Other prominent features include hyperactivity, nervousness and irritability, ultimately leading to a sense of easy fatigability. Insomnia and impaired concentration are common and fine tremor of hands is also a frequent finding.

The most common cardiovascular manifestation is sinus tachycardia, often associated with palpitations, occasionally caused by supraventricular tachycardia. Atrial fibrillation is more common in patients > 50 years.3 There is sweating and heat intolerance and the skin is warm. Hair texture becomes fine and a diffuse alopecia occurs in up to 40% of patients. Gastrointestinal transit time is increased leading to diarrhea and occasionally mild steatorrhea. Oligomenorrhea or amenorrhea is frequently experienced by women and men may have impaired sexual function. In Grave's disease, the thyroid is usually diffusely enlarged to two to three times its normal size. Increased vascularity
SEX WISE DISTRIBUTION OF PATIENTS

<table>
<thead>
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<th>Sex</th>
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<th>%age</th>
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<tbody>
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<td>70</td>
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<tr>
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</tr>
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<td>Total</td>
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<td>100</td>
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Table 1

of the gland may result in a thrill or bruit over it. Patients with Grave's thyrotoxicosis lose weight despite increased appetite and food intake, thus suggesting a disturbed balance between energy intake and expenditure. The consistency is firm. Sympathetic over activity results in lid retraction, causing a staring appearance, and can occur in any form of thyrotoxicosis. Grave's disease is associated with specific eye signs that comprise Grave's ophthalmopathy.

Anxiety disorders are present in 15 to 20% of medical clinic patients. Anxiety, defined as a subjective sense of unease, dread or foreboding can indicate a primary psychiatric condition or can be a component of, or reaction to, a primary medical disease. Approximately one third of patients presenting with anxiety have a medical etiology for their psychiatric symptoms. Common symptoms include palpitations, sweating, tremors, shortness of breath and gastrointestinal distress.

The aim of this study was to determine the number of patients having undiagnosed thyrotoxicosis, treated previously for anxiety neurosis.

MATERIAL AND METHODS

This study was carried out on fifty consecutive patients with symptoms of palpitations, sweating, weight loss, tremors and panic attacks presenting to the medical OPD of Jhautabad Medical Complex from Jan 2004 to June 2004. The clinical parameters used for thyrotoxicosis were tremors, sweating, a resting pulse above 90 beats per minute, wasting, a palpable thyroid gland and thyroid eye signs as lid lag, proptosis or ophthalmoplegia.

Inclusion criteria: Patients with symptoms of palpitations, sweating, tremors, anorexia and weight loss and those experiencing periods of intense fear and had been previously treated with anxieties were included in the study.

Exclusion criteria: All those patients who had diagnosed thyroid disease, were being treated for thyroid disease or had undergone thyroid surgery or radioablation of thyroid gland were excluded from the study. In addition patients who had anxiety with concomitant medical disease, as tuberculosis, hepatitis, diabetes or hypertension etc and those on anti-arrhythmic drug amiodarone and

FREQUENCY OF THYROTOXICOSIS IN PATIENTS WITH ANXIETY NEUROSI

<table>
<thead>
<tr>
<th>Patients</th>
<th>Number</th>
<th>%age</th>
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<tbody>
<tr>
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<td>22</td>
</tr>
<tr>
<td>Euthyroid</td>
<td>39</td>
<td>78</td>
</tr>
<tr>
<td>Total</td>
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<td>100</td>
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</table>

Table 2

interferon therapy for hepatitis were also excluded from the study.

These patients were evaluated with a detailed history, with an effort to determine whether the anxiety antedates or postdates a medical illness or is due to medication side effect. After history and thorough physical examination, all patients underwent thyroid function test and thyroid scan to rule out thyrotoxicosis. Electrocardiogram was also performed in all patients.

RESULTS

A total of fifty patients were enrolled in the study. They were between 20 to 45 years of age. Mean age was 32.5 ± 4.3 years. Thirty five (70%) were females and fifteen (30%) were males (Table-1). Out of fifty patients, eleven patients (22%) were found to have elevated total and unbound thyroid hormone and low thyroid stimulating hormone levels. Thirty nine (78%) patients had normal thyroid function test (Table-2). Out of 11 thyrotoxic patients 7 were females and 4 were males (Table-3). Thyroid scan showed that 11 (22%) had increased tracer uptake and in the rest uptake was normal. Ten patients had sinus tachycardia on electrocardiogram (ECG) and one had atrial fibrillation. Rests of the ECGs were normal.

DISCUSSION

Hyperthyroidism is a common endocrinian abnormality and affects approximately 2% of women and 0.2% of men. Alexander 1 considered that thyrotoxicosis was a psychosomatic disorder, but this idea was not supported by the evidence. However there are reports suggesting that stressful life events may precipitate the onset of disease. 2 Thyrotoxicosis is defined as a state of thyroid

SEX WISE DISTRIBUTION OF THYROTOXIC PATIENTS

<table>
<thead>
<tr>
<th>Sex</th>
<th>No of thyrotoxic pts</th>
<th>%age</th>
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<tbody>
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<td>7</td>
<td>63.7</td>
</tr>
<tr>
<td>Male</td>
<td>4</td>
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Table 3
hormone excess and the major aetiologies are Grave's disease, toxic multinodular goiter and toxic adenomas. Clinical features of thyrotoxicosis can mimic certain aspects of mental disorders as panic attacks and generalized anxiety disorder. A diagnosis of anxiety neurosis is made only if a medical aetiology for panic attacks has been ruled out. Patients with true panic disorder will experience a discrete period of intense fear or discomfort in which symptoms develop abruptly and reach a peak with in 10 minutes and will often focus on one specific feature such as palpitations or syncope.17

The symptoms of generalized anxiety disorder are persistent and not restricted to any particular set of circumstances. There are 3 characteristic features:

- Worry and apprehension, which are difficult to control and more prolonged than the ordinary worries and concerns of healthy people.
- Motor tension, which may be experienced as restlessness, trembling, inability to relax, headache.
- Autonomic hyperactivity, which may be experienced as sweating, palpitations, dry mouth and dizziness.18

Palpitations, caused by sinus tachycardia and occasionally by atrial fibrillation, are the most frequent cardiovascular symptom of thyrotoxicosis,19 and are usually regarded as the part of generalized anxiety disorder. Thyroid hormone excess should routinely be excluded in patients with atrial fibrillation20. There are always some psychological symptoms in hyperthyroidism, including restlessness, irritability and distractibility, which may be so marked as to resemble anxiety disorder. Occasionally, delirium occurs soon after the start of treatment with antithyroid drugs. Using standard criteria. anxiety and depression are common but the prevalence is some what inflated by scoring as anxiety the somatic symptoms of thyrotoxicosis which they closely resemble.21 The severity of emotional symptoms are not related to thyroid hormone levels but they usually improve following antithyroid therapy.19

This study was conducted on fifty patients, previously treated for anxiety neurosis. Eleven patients (22%) had thyrotoxicosis and the rest 39 (78%) were euthyroid. In these patients panic disorder was the primary diagnosis. All of these patients were previously treated with antidepressants such as tricyclic antidepressants, or selective serotonin reuptake inhibitors. Thyrotoxic patients showed little improvement with antidepressants.

This study stresses the importance of exclusion of thyrotoxicosis, presenting with anxiety as the chief complaint. The most discriminating signs of thyrotoxicosis are a palpable thyroid, a sleeping pulse above 90 beats per minute, atrial fibrillation and tremors.22 The most discriminating signs of thyrotoxicosis in our study were tachycardia above 95 per minute, sweating, a palpable thyroid gland and wasting. For this reason a thorough history, physical examination and judicious use of laboratory tests are required. Prompt diagnosis is essential to maximize the clinical outcome.23 Primary care physicians should base referrals to a psychiatrist on the basis of signs and symptoms of a mental disorder and absence of organic disease.

CONCLUSION

Thyrotoxicosis may present as anxiety neurosis. Primary anxiety disorder should be diagnosed only after exclusion of relevant medical conditions like thyrotoxicosis.

REFERENCES

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