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Anxiety Disorder in Patients with Essential Tremor

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Abstract

Background: Essential tremors is one of the most common movement disorder and is a classic example of disorder whose interpretation is shifted from one dimensional disease with prominent motor feature to a multidimensional disease with varied non motor features. In 2001 Louis Et Al was the first to describe the essential tremors as more than motor disorder, in the past decade motor features of essential tremors

has been studied in detail but still its more important to study about the non motor features of essential tremors.

Aim: To study about the prevalence and severity of anxiety in patients with essential tremors**.**

Methods: A cross-sectional descriptive study including a total of 30 patients that were randomly selected in Neurology /Psychiatry Out Patient Department in Chengalpattu Medical and Hospital were evaluated based on socio-dermographic details and the severity of anxiety is assessed by Hamilton-Anxiety rating scale .

Results: Based on the observations done, the results show that 46.7% of patients constituting age group of 50-69 has anxiety disorder. Result shows that men hold the highest percentage of 60% compared to women. Patients from the rural area has the highest percentage of 53.3% than urban area. The socioeconomic status of middle class holds the highest percentage of 56.7% compared to the lower class. Observing the education and occupation, the illiterates and the unemployed has the highest percentage of 50% and 56.7% respectively. The highest percentage in the component of marital status is of married status which is 70%. In Hamilton anxiety rating scale majority of the patients scored highest on all the components.

Conclusion: Individuals suffering from essential tremors accompanied by secondary anxiety disorder definitely show a higher level of disability than just having essential tremor or anxiety disorder alone.

Keywords: Essential Tremor, Anxiety patients.

Introduction

Essential tremor (ET) is a condition suffering from shaking of the hands, head, voice, and body, especially when active or anxious and is comprised of much more than a benign rhythmic oscillation of a limb. A significant amount of data has been accumulated indicating ET is a multifaceted syndrome with multiple neurologic causal pathways, and, possibly, inherited.

Essential tremor is considered to be one of the most common movement disorders in the world, but its non-motor symptoms have been studied relatively in clinical practice.It is also said that since it is possibly inherited, about half of children born to a parent with essential tremor eventually develop it, usually starting in their 30s. Unlike the tremor of Parkinson's disease, the shaking in essential tremor gets worse with anxiety and interferes with the physical activity such as writing, feeding, dressing, and other activities of daily living. Shaking in public makes the person embarrassed, which in turn aggravates the tremor, creating a vicious circle . Over the last 25 years, there has been a gradual acknowledgment that essential tremor (ET) is comprised of much more than a benign rhythmic oscillation of a limb [1–4]. A significant amount of data has been accumulated indicating ET is a multifaceted syndrome with multiple neurologic causal pathways, and, possibly, is a family of diseases [5].

Concurrent with closer examination of neurologic connections has been an increasing awareness of the breadth and magnitude of non-motor symptoms, including cognition, disability and well-being [3, 4]. Evidence is emerging that ET is related to subtle, but significant cognitive impairment; however, the relationship between changes in cognition and non-motor features of ET have rarely been examined [2, 3]. Data supporting impaired cognition is primarily based on clinic samples or individuals being considered for deep brain stimulation implant surgery. Such samples are not representative the population of individuals with ET and those patients who present for consideration of implant surgery are the most severe cases. Little is known about independent living, community dwelling, non-clinic based ET samples in terms of cognition, disability and well-being. Busenbark et al. [1] and Metzer [6] were the first to observe that despite pharmacotherapy large numbers of patients with ET reported significant embarrassment and diminished quality of life in the psychosocial domain. While significant, embarrassment is likely to be too narrow a description of the behavior evoked by situations patients with ET encounter. ET patients report far more than “embarrassment” which can too easily be trivialized by health care providers and others. Embarrassment, an emotional response, is a piece of social phobia or social anxiety disorder (SAD) [7]. The Diagnostic and Statistical Manual (DSM) [7] exclusionary criteria applied in the diagnosis of psychiatric disorders may have limited examination of the extent and characteristics of social anxiety that frequently co-occurs with ET. Employment of this criterion restricts the diagnosis of SAD to cases where the anxiety is unrelated to a medical disorder such that a “pure” anxiety disorder may be detected. With respect to ET, doing so limits our understanding of the relation between anxiety and medical disorders and whether anxiety is a precursor to a medical disorder, a pathological consequence, or a conditioned emotional response brought about through learning as proposed by Lundervold and Poppen [8]. Reports of SAD among movement disorder clinic samples range from 33–42% [9, 10]. SAD is comprised of three response components:

(a) Emotion (fear and anxiety and embarrassment).

(b) Cognition (worry and anxious anticipation).

(c) Escape and avoidance behavior.

Solely focusing on embarrassment ignores the other two vitally important response components leading to insensitive assessment of the quality and characteristics of SAD is likely to lead to poorer treatment outcomes and limited use evidence-based treatments that address avoidance behavior [11].

Accurate behavioral assessment requires that instruments are valid and reliable in order to prevent measurement error. For example, Schneier et al. [9] reported that ET patients experienced greater anxiety in performance versus social interaction situations. Topçuoğlu et al. [10] reported increased avoidance behavior among ET-SAD compared to non-ET SAD patients. These patients also scored higher on performance-related fear. Tremor severity was not related to measures of SAD, while the level of social anxiety was found to be directly related to increased disability and decreased quality of life. These findings point to the important and unique situational components that evoke social anxiety and the multiple modes of responding that comprise all anxiety disorders. The phenomenology of SAD among ET patients may be different and points to the need to examine the utility of current measures of SAD with this same group. Moreover, there is a clear need to establish reliability and validity measures of social anxiety used with patients with ET. Identification of such measures would lead to more precise assessment of social anxiety and evaluation of treatment outcome of SAD among patients with ET. The purpose of the current study was to examine the relation between (a) self-report measures of social anxiety, tremor disability, and clinical ratings of tremor severity and (b b) measures of cognition and anxiety.

Materials and Methods

A cross-sectional descriptive study including a total of 30 patients that were randomly selected in Neurology /Psychiatry Out Patient Department in Chengalpattu Medical and Hospital were evaluated based on socio-demographic details and and the severity of anxiety is assessed by Hamilton-Anxiety rating scale.

Inclusion Criteria

1.Essential tremor patients aged between 18-65 years of age.

2. All cooperative patients whom are willing to give informed consent.

Exclusion Criteria

1. Patients who are uncooperative and unwilling to give informed consent.

2. Presence of co-morbid substance dependence .

3. Evidence of affective or of organize mental disorders.

4. Presence of thyroid disorders.

Results

The study included 30 people

following history of tremors.

Table 1: Socio-dermographic Characteristics of Sample Patients

Sociodermographic Characteristic	No. of patients and %
Age distribution	
10-29	8 (26.70%)
30-49	5 (16.7%)
50-69	14 (46.7%)
70-89	3 (10%)
Sex	
Male	18(60%)
Female	12(40%)
Place	
Urban	14(46.7%)
Rural	16(53.3%)
Socioeconomic status	

Lower	13(43.3%)
Middle	17(56.7%)
Education	
Illiterate	15(50%)
Primary	7(23.3%)
Secondary	4(13.3%)
College	4(13.3%)
Occupation	
Unemployed	17(56.7%)
Semiskilled	8(26.7%)
Skilled	2(6.7%)
Professional	3(10%)
Marital Status	
Single	9(30%)
Married	21(70%)

(Table 1 show that 46.7% of patients constituting age group of 50-69 has anxiety disorder shows that men hold the highest percentage of 60% compared to women. Patients from the rural area has the highest percentage of 53.3% than urban area. The socioeconomic status of middle class holds the highest percentage of 56.7% compared to the lower. Observing the education and occupation, the illiterates and the unemployed has the highest percentage of 50% and 56.7% respectively. The highest percentage in the component of marital status is of married status which is 70%.)

Table 2: Hamilton- Anxiety Rating Scale

Characteristic	**No. of patients and %**
Anxious mood	
Mild	5 (16.7%)
Severe	7 (23.3%)
Very severe	18 (60%)
Tension	
Not present	2 (6.7%)
Mild	2 (6.7%)
Moderate	3 (10%)
Severe	9 (30%)
Very severe	14(46.7%)

Fears	
Not present	1(3.3%)
Mild	2(6.7%)
Moderate	6(20%)
Severe	5(16.75)
Very severe	16(53.5%)
Insomnia	
Not present	4(13.3%)
Moderate	7(23.3%)
Severe	8(26.7%)
Very severe	11(36.75%)

Insomnia	
Not present	4(13.3%)
Moderate	7(23.3%)
Severe	8(26.7%)
Very severe	11(36.75%)
Intellectual	
Not present	6(20%)
Mild	2(6.7%)

Moderate	2(6.7%)
Severe	10(33.3%)
Very severe	10(33.3%)
Depressed mood	
Not present	4(13.3%)
Mild	4(13.3%)
Moderate	1(3.3%)
Severe	6(20%)
Very severe	15(50%)

Somatic (Muscular)	
Not present	3(10%)
Mild	3(10%)
Moderate	6(20%)
Severe	16(53.5%)
Very severe	2(6.7%)
Sensory (Sensory)	
Not present	5 (16.7%)
Mild	4(13.3%)
Moderate	6(20%)
Severe	15(50%)

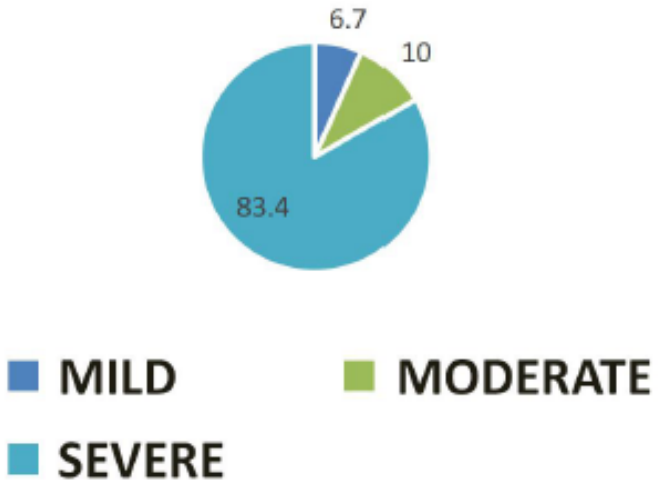
Cardiovascular System	
Not present	4(13.3%)
Mild	3 (10%)

Gastrointestinal Symptoms	
Not present	4(13.3%)
Mild	4(13.3%)
Moderate	5 (16.7%)
Severe	14(46.7%)
Very severe	3 (10%)
Gastrourinary System	
Not present	1(3.3%)
Mild	5 (16.7%)
Moderate	8(26.7%)
Severe	15(50%)
Very severe	1(3.3%)

Autonomic Symptoms

Not present	2 (6.7%)
Mild	5 (16.7%)
Moderate	9 (30%)
Severe	13(43.3%)
Very severe	1(3.3%)
Behaviour At Interview	
Not present	1(3.3%)
Mild	4(13.3%)
Moderate	10(33.3%)
Severe	15(50%)

Table 2: HAM Scale



Discussion

The results show that 46.7% of patients constituting age group of 50-69 hasanxiety. This is consistent with ***Adrian Hand forth*** study 1 which quotes Tremor patients were more likely to have Cerebrovascular disease above age 35, and CAD, congestive heart failure, and stroke above age 50.

The well-known CAD risk factors hypertension, smoking, hyperlipidemia, diabetes, and alcoholism were more common in tremor patients. In addition, chronic stress, depression, PTSD, generalized anxiety,type D personality, and lack of social support promote CAD, mediated by excess activation of the hypothalamic–pituitary–adrenal (HPA) axis. Result shows that men hold the highest percentage of 60% compared to women. Patients from the rural area has the highest percentage of 53.3% than urban area. The socioeconomic status of middle class holds the highest percentage of 56.7% compared to the lower. Observing the education and occupation, the illiterates and the unemployed has the highest percentage of 50% and 56.7% respectively. Thehighest percentage in the component of marital status is of married status which is 70%. Next, 60% of them have very severe anxious mood, 46.7% have very severe tension, 53.3% have very severe

form of fear, 36.7% people complain of very severe insomnia, 33.3% of them have severe and very severe form of intellectual, and 50% of them have very severe depressed mood, 53.3% results for severe somatic (muscular) whereas 50% results for severe somatic (sensory).

This is also consistent with Adrian Hanforth study which reveals increased rates of 'Alzheimer's diagnosis in tremor patients over age 50, confirming previous reports 1 And is also consistent with Duane A.Lundervald et al study3 which says In contrast to prior research on cognition among ET patients, we found few consistent relationships between multiple measures of cognition, anxiety, tremor severity, or tremor disability. The Hamilton Anxiety Rating Scale reveals that 50% of the patients have severe cardiovascular symptoms, 50% of them have severe respiratory symptoms, 46.7% have severe gastrointestinal symptoms, 50% of patients have severe gastro urinary symptoms, 43.3% have severe autonomic symptoms, and 50% of them have severe behaviour at interview. In addition, the HAM-Scale shows that 83.4% of the patients with essential tremor are predominantly suffering from severe anxiety, whereas 10% are of moderate scale and 6.7% of the patients are of mild scale of anxiety.

Conclusion

It is well established that individual suffering from essential tremors accompanied by secondary anxiety disorder definitely show a higher level of disability than just having essential tremor or anxiety disorder alone. This is a complex problem having medical and social ramifications which impacts social strata. Despite the associated medical and psycho-social effects of anxiety in patients with essential tremor, there are significant increase in anxiety in patients with essential tremor all over the world. Hence, future work is needed to explore any other external factors contributing to the current issue as working hand and hand will bring a huge change to the betterment of the patients everyday lives.

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