Benign Familial Essential Head Tremor: A Case Report

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ABSTRACT

Introduction: Essential tremor is a movement disorder characterized by tremors of the hands and head and seen in 5-10% of patients above the age of 60 years.

Case report: We report a case of benign essential familial head tremor that was diagnosed when the patient was referred for psychiatric fitness and that responded very well to Propranolol.

Conclusion: It is a condition where the causative factors and the pathophysiology are ill understood and there are no fixed neuroimaging paradigms for the disorder.

Keywords: Propranolol, Head Tremor, Essential Tremor, Neuroimaging

INTRODUCTION

Essential tremor (ET) is one of the most prevalent moment disorders. 5-10% of individuals above the age of 60 years have the disorder.[1] The exact clinical definition of ET is still under debate and research using the consensus statement of the Movement Disorder Society typically has an estimated an error margin of 30-40% in diagnosis.[2] The causative factors of the tremors are also ill understood and multiple brain structures like the inferior olive, the cerebellum, the red nucleus, the thalamus, the cortex and their neurotransmitter systems have been implicated.[3] These make up a distinct neural circuit called the cerebello-thalamo-cortical network (tremor network).[4] The role of GABA in the genesis of these tremors have also been elucidated.[5] Various theories in the genesis of ET include a neurodegenerative disorder with actual progressive cell loss, a disorder with localized GABA dysfunction and a disorder caused by abnormal neuronal oscillations within the tremor network. None of this has been confirmed yet and is hypotheses.[6-8] We present herewith a case of benign essential tremor of the head that responded to Propranolol.

CASE REPORT

A 45 year illiterate married female having 5 children was referred to our out patient department from the gynecology department for a psychiatric evaluation for fitness to undergo vaginal hysterectomy. On our clinical examination it was observed that she had continuous movements of her head. The movements were side to side and it would be present whole day but would disappear in sleep. These movements were present since the past 5 years as claimed by the patient and she had never taken treatment for it because it did not affect her daily routine of work. She had no associated pain or difficulty in any aspects of movement. She had no tremors of the hands and other body parts. Her neurological examination was perfectly normal and revealed no abnormality. There was no nystagmus present and there was no history suggestive of other movement disorders. There was history of similar movements of the in her mother and brother. There was no history suggestive of any head injury or other neurological complaints. On psychiatric evaluation, there was no active psychiatric symptoms of any kind. A neuroimaging study in the form of magnetic resonance imaging revealed no abnormality. There was no history of medical and surgical illnesses. Her laboratory investigations in the form of blood counts, liver and kidney function, thyroid function, electrolytes and serum calcium and Vitamin D were normal. Her mental status examination was absolutely normal. There was no family history suggestive of parkinsonism and other movement disorders. In consultation liaison with a Neurology opinion we diagnosed her as having Benign Essential Familial Tremors of the Head and she started her on Propranolol 20mg/day in divided doses. After 2 weeks if follow up, she had 20% improvement in her symptoms and dose was escalated to 40mg in divided doses. She showed a 60% improvement on 2nd follow up and even underwent hysterectomy successfully.

DISCUSSION

In essence, the clinical diagnosis of ET is based on clinical assessment of the phenomenological characteristics of which head tremor in the absence of hand tremor is rare. The unclear association of ET with many medical comorbidities and the huge variation in clinical presentation often cause a misdiagnosis and patients do not receive the right treatment that they must get.[9] Neuroimaging may many a times reveal no abnormality as in our case and there are no fixed neuroimaging findings that have been reported.[10] It is clear from community-based studies that many ET cases have not been previously diagnosed with the disease, and very often the diagnosis happens accidently when they visit a clinic.[11] Apart from difficulties in day to day function, cases of ET also show cognitive deficits and have been associated with more self-reported hearing impairment[12], depressive symptoms[13], and increased risk for development of Parkinson's disease[14] and mortality.[15] Clinicians must be aware of the disorder and its detection as it can easily be treated. Our patient responded very well to Propranolol which is the drug of choice for most cases of ET.[16]

CONCLUSION

It is a condition where the causative factors and the pathophysiology are ill understood and there are no fixed neuroimaging paradigms for the disorder. There is a lack of awareness of the disorder and clinicians often misdiagnose the disorder.

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