

## Case Report

# Panic attacks due to Total Thyroidectomy: A Case report

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## Abstract

**Introduction:** Hypocalcemia is a rare cause for panic attacks. Therefore, It might be misdiagnosed in some cases. **Case presentation :**We intend introduce a 28 years old woman with no previous history of psychiatric problems referred due to weight loss, hair loss and hyperthyroidism like symptoms. In the first all physicians haven't considered hypo calcemia follow thyroidectomy. **Discussion :** Panic disorder is one of psychiatric disorders that it suffers the patient and take a precise history and examination can play an effective role for treatment and prevent of do more diagnostic evaluation . It suggests that physicians when visit a patient with anxiety states like panic attacks specially in recurrent and resistance to treatment , they must mind to hypocalcemia. **Copyright © WJMMS, all rights reserved.**

**Key words:** Hypo calcemia , Thyroidectomy, Panic attack, anxiety

**Declaration of interest:** None

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## Introduction

The panic attack is considered as an episode of abrupt intense fear accompanied by some autonomic or cognitive symptoms like Palpitation, trembling, -Sensations of shortness of breath, Chest pain or discomfort, Fear of losing control, de realization or depersonalization, fear of death and Nausea or abdominal distress (1).

Hypocalcemia is defined Calcium < 8.5mg/dl and neuropsychiatric Symptoms are include : Papilledema, Seizures, Dementia , Mental Retardation, depression ,anxiety , Extrapyramidal symptoms ,Calcifications of basal ganglia (in longstanding disease) (1,2) After total thyroidectomy, Calcium, phosphate, and PTH levels declined significantly 1 week, 3 months, and 1 year next, and Alk-ptase levels increased at 1 week and then decreased significantly 3 months and 1 year after surgery. Symptoms improved significantly 3 months after surgery. The patients with hypoparathyroidism need more calcium carbonate and vitamin D3 than nonhypoparathyroid patients (3). In literature review, psychiatric aspects of hypocalcemia and hypo parathyroidism has been defined and considered in the differential diagnosis of organic anxiety syndrome ( 4-6). We intend introduce a woman with history of hyper thyroidism and total thyroidectomy that referred to physicians with excessive anxiety and panic attacks. She treated as panic disorder in first. But it was obvious that shi was a patient was hypo parthyroidism and hypo calcemia .Hypo calcemia was etiology for anxiety states . This is a rare and interest case for training of physicians that mention to secondary causes of psychiatric disorders like panic disorder

## Case Presentation

A 28 years old married woman with no previous history of psychiatric problems referred in a physician due to weight loss, hair loss and hyperthyroidism like symptoms. In laboratory exams , TSH was very low. Toxic thyroid nodules were diagnosed follow fine needle aspiration (FNA) and biopsy. She under went Total Thyroidectomy by surgeon. Levothyroxine 0.1 mg/daily was prescribed and thyroid function tests were normal. After 4 weeks , She felt sudden anxiety attacks, palpitation, Choking and stroke sensation and fear of dying. Familial history was negative for thyroid and psychiatric disorder. The patient was been referred in a psychiatrist. She was anxious, agitated with tachy pnea , palpitation and chine stoke sign. She hadn't primary or secondary gain. Diagnosis was panic attack and she was prescribed by Imipramine 25 mg twice a day , Trifluoperazine 1mg twice a day , Sertraline 50 mg/daily, Alprazolam 0.5 mg if needed. She kept on treatment until 5 months and drug dosage were elevated till nearly maximum dosage , but she hadn't satisfaction from her condition and treatment. She referred again and again and diagnosis was fixed. She was frustrated because of this condition. She experienced this fearfull condition every day. She had pri-oral paresthesia , numbness or tingling in the hands and feet, nausea , vomiting, muscular weakness, fatigue, hair loss, pain and tachypnea. The scar because of thyroidectomy section was obvious on cervical zone .Serum calcium level was low. Therefore, She was prescribed Tab. Calcium her. Then she was good , the panic attacks were stopped after 2 weeks. Therefore, hypo calcemia was misdiagnosed ago. Now diagnosis is panic disorder due to hypo para thyroidism ( General medical condition /GMC).

## Discussion

Some biological theories explain the etiology of panic attack/ disorder: sodium lactate infusion hypothesis, hypo calcemia theory, hyperventilation, thermostat theory and focal brain abnormality theory. According to previous studies , adding calcium to the lactate infusion reduces incidence and severity of anxiety symptoms. This lead to hypothesis that lactate provoked panic symptoms including dyspnea, dizziness, feeling of unreality, parasthaesia, faintness, trembling by binding to ionized calcium, therefore, hypocalcemia has been considered a topology for panic attacks (1). Anxiety states are not uncommon in Hypo parathyroidism and suggest that it should be considered in the differential diagnosis of organic anxiety syndrome diseases. It is reported in thyroid adenoma, carcinoma and crohn's disease. Panic attacks are common and cost in the United States, diagnosis is a problem and many patients are cured for other etiologies . When an background disorder is identified to be present, treatment of it may ameliorate attacks (2). Lifetime prevalence of thyroid dysfunction in persons with panic disorder is

high and association between panic disorder and thyroid problems is been suggested (7,8).Anxiety states follow thyroidectomy maybe presented as primary psychiatry disorder like panic disorder. In a study , It was suggested that major depressive disorder can be as a complication of an undiagnosed chronic hypoparathyroidism following para thyroidectomy. Depression was completely resolved by calcium supplementation prescription to restore the serum calcium homeostasis (9).Finally , with take a precise history, It was probable that total thyroidectomy due to hyperthyroidism was cause of removal of parathyroid glands . Nuclear medicine established loss of parathyroid glands. Tachpnea follow anxiety will exacerebate hypocalcemia and also hypocalcemia will exacerebate anxiety ( Vehicle cycle). We think that may a recurrent hypocalcemia cause this phenomenon. . Lab tests showed hypo calcemia . The prescription of calcium resolved problems . After than , the patient hasn't experienced panic attack yet. In fact , response to treatment was excellent and she was free symptom of psychiatric problems. Of course Current handling of hypo parathyroidism often involves taking large doses of calcium and active vitamin D, which must be carefully monitored to help control symptoms.

## Conclusion

We suggest to physicians and psychiatrist when visit a patient with anxiety states like panic attacks specially in recurrent and resistance to treatment , they must mind to hypo calcemia or hypo parathyroidism. Take a precise history about the etiologies of hypo calcemia like thyroidectomy is important and vital.

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