# Primary versus Secondary Psychiatric Disorders: A Typical Case presentation

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Received - 11 February 2019 Initial Review - 26 February 2019 Accepted - 23 March 2019

## ABSTRACT

Psychotic features like delusions, hallucinations, disorganized behavior, disorganized speech and negative symptoms like anhedonia, restricted affect can also appear in secondary medical conditions causing psychosis. Here, we present the case of psychotic symptoms in correlation with a medical condition of subclinical hypothyroidism in a 28-years-old female having an illness for 5 years. This patient presented with psychotic symptoms and did not show any symptomatic improvement with antipsychotics in the past. We reached to clinical suspicion of anti-thyroid psychosis or subclinical hypothyroidism with psychosis on the basis of a slight elevation in thyroid stimulating hormone levels and high titers of anti-thyroid peroxidase antibodies. Levothyroxine was augmented in her treatment regime and she started showing improvement in her symptoms.

**Keywords:** *Levothyroxine, Subclinical hypothyroidism, Thyroid peroxidase antibody.*

The association of thyroid disorders and psychiatric disorders are well known. Hypothyroidism, a medical condition may mimic psychotic symptoms such as delusions and hallucinations, agitated behaviour [1, 2]. Approximately, 5-15% of patients with hypothyroidism show psychotic features [3]. In hypothyroidism, psychosis emerges months or years after physical manifestations [4]. Psychosis may be unrelated to an absolute degree of deficit in thyroid levels [5].

When underlying medical comorbidities are left undiagnosed or untreated like subclinical hypothyroidism, psychiatric disorders become difficult to treat. So, timely diagnosis and treatment is a must of underlying medical comorbidities in psychiatric disorder. We present the case of psychotic symptoms in correlation with a medical condition of subclinical hypothyroidism in a 28-years-old female.

## CASE REPORT

A 28-years-old female was brought in Psychiatry OPD by her siblings, with complaints of odd behavior, agitation, suspiciousness, seeing images on walls, hearing a male voice, poor self-care and low appetite since 4 years. Her relatives noticed a gradual change in her behavior. She had movement of lips as if she is talking to someone. She used to wave hands as if she is addressing someone. When family members tried to ask her about her behavior she used to say "A man is controlling her mind and body" and she has to act according to that man. She heard voices of a man and whenever family members tried to console her that there are no voices she replied with agitation and used to become violent towards them. The patient used to speak them that "I can clearly see him dressed in white clothes and if I disobey him, He will assault me sexually". She had been treated in the past with antipsychotics several times without improvement leading to stopping treatment by her relatives. She was admitted to a psychiatric ward for detailed evaluation.

On examination, her blood pressure was 130/80 mm of Hg, pulse rate 82 per minute, and oxygen saturation was 99% at the time of admission. Positive Mental status examination findings were hallucinatory behavior, auditory and visual hallucinations, with increased psychomotor activity, delusions of persecution, somatic delusions, derailment and thought block.

After admission, her routine investigations and radiological investigations were normal except mild elevation of Thyroid stimulating hormone (TSH)(5.66). The patient was given an adequate dosage of antipsychotics such as risperidone, haloperidol, amisulpride, but no improvement in her symptoms during the first 7 days in the ward. Electroconvulsive therapy (ECT) was denied by attendants. After getting abnormal TSH findings and on endocrinologist opinion, Thyroid peroxidase antibody (TPO) investigation was sent and the value was found to be significantly raised with titers of 368.5. Levothyroxine was added by endocrinologist on the 9$^{th}$ day of admission. The patient was discharged with a diagnosis of psychotic disorder due to a general medical condition on request of the attendant on the 10$^{th}$ day as symptoms were not improving, with risperidone plus Trihexyphenidyl, chlorpromazine, propranolol, and Levothyroxine. Two weeks later, her sister reported telephonically that her psychotic symptoms

have reduced and her odd behavior is mildly improved. Unfortunately, the patient never reported back for the follow-up.

## DISCUSSION

The prevalence rate of hypothyroidism is generally 4.6% (0.3% overt, 4.3% subclinical)with a high rate in females as compared to males in the ratio of 2–8:1 and psychosis seen in approximate 2% of hypothyroid cases. In our case, anti-thyroid TPO antibodies were increased excessively and the patient was having a subclinical hypothyroid condition which relates to some studies which show that anti-thyroid antibodies are a common cause of hypothyroidism. Decreased concentration of serotonin in Central nervous system and increased levels of dopamine that causes psychosis is seen in hypothyroidism patients and the same was also seen in our patient having psychotic features associated with a medical condition of Hypothyroidism [6].

Some of the literature showed that mental status examination of hypothyroid patient presented with mild impairment in attention span, agitation, delirious condition or psychosis, and some psychological dysfunction generally include forgetfulness, lethargy, mental slowing, inattention and lability of emotion as this was also seen in our patient as she was agitated and was smiling occasionally with poor attention during interview [7]. Perceptual changes may be seen like with gustatory, hearing or visual changes and delusions with hallucinations can be associated as the disease advances [8]. Our patient also showed visual hallucinations and delusion of persecution as her illness was advanced to almost 5 years. If antibodies against thyroid are present with associated hypothyroidism or not, the patient gives a history of autoimmune thyroiditis and if responds well to steroids, the condition is known as Hashimoto's encephalopathy [9]. Although psychopathological symptoms are one of the early manifestations of the clinical picture of hypothyroidism, they are generally misdiagnosed as primary disorders of psychiatry [10]. This confusion may sometimes lead to improper or delay in treating the condition.

## CONCLUSION

This case report highlights the necessity to screen out secondary medical causes which mimic psychiatric symptoms presented in this female patient and also the important yet hidden correlated thyroid function in patients presented with mood and behavior issues. Hence, we reached an important conclusion that thyroid abnormalities also be evaluated whenever a patient complains of, mood problems, anxiety or psychosis. Psychiatric disorders are disorders of exclusion so secondary psychiatric disorders to be carefully evaluated.

## REFERENCES


1. Hedley, AJ, Bewsher, PD. Psychosis and antithyroid drug therapy. Br Med J 1969;3:596-7.
2. Vita R, Mazzi V, Antonelli A, Benvenga S. Antithyroid medications, and psychosis. Expert Opin Drug Saf 2013;12:865-72.
3. Hall RC. Psychiatric effects of thyroid hormone disturbance. Psychosomatics 1983;24:7-11, 15-8.
4. Logothetis, J. Psychotic behavior as the initial indicator of adult myxedema. J Nerv Ment Dis 1963;136:561-8.
5. Lehrmann JA, Jain S. Myxedema psychosis with grade II hypothyroidism. Gen Hosp Psychiatry 2002;24:275-8.
6. Benvenga S, Lapa D, Trimarchi F. Don't forget the thyroid in the etiology of psychoses. Am J Med 2003;115:159-60
7. Heinrich TW, Graham G. Hypothyroidism presenting as psychosis: Myxedema madness revisited. J Clin Psychiatry 2003;5:260-6.
8. Bergink V, Kushner SA, Pop V, Kuijpens H, Lambregtsevanden Berg, MP, Drexhage RC, Wiersinga W, Nolen WA, Drexhage HA. Prevalence of autoimmune thyroid dysfunction psychosis. Br J Psychiatry 2011;198: 264-8.
9. Fatourechi V. Hashimoto's encephalopathy: myth or reality? An endocrinologist's perspective. Best Pract Res Clin Endocrinol Metab 2005; 19:53-66.
10. Karthik MS, Nandhini K, Subashini V, Balakrishnan R. Hashimoto's Encephalopathy Presenting with Unusual Behavioural Disturbances in an Adolescent Girl. Case Rep Med 2017; 2017:3494310.


*Funding: None; Conflict of Interest: None Stated.*

**How to cite this article:** Kumar P, Bhaskar M, Soni A. Primary versus Secondary Psychiatric Disorders: A Typical Case presentation. Indian J Case Reports. 2019;5(2):143-144.

Doi: 10.32677/IJCR.2019.v05.i02.016