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COINCIDENCE OF DELUSIONAL DISORDER, SUBCLINICAL HYPOTHYROIDISM AND HIRSUTISM: A CASE REPORT

HEZEYANLI BOZUKLUK, SUBKLİNİK HİPOTİROİDİZM VE HİRSUTİZMİN EŞZAMANLI GÖRÜNÜMÜ: OLGU SUNUMU

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Abstract

In this report, we present a 51 year old postmenopausal woman with clinical presentation of “delusional disorder-somatic type” and also facial hirsutism and subclinical hypothyroidism. Blood tests revealed thyroid gland dysfunction with high TSH and anti-TPO levels but other blood tests and radiological investments were found to be normal. The relationship between thyroid dysfunction, hirsutism and psychosis is discussed in the context of this particular case. In presence of limited case reports in literature indicating a relationship with subclinical hypothyroidism and psychotic symptoms, we think that our case is important for reminding clinicians to consider endocrine disorders providing a basis for psychiatric disorders and to investigate thyroid function deficiency not only in patients with depression but with other psychiatric presentations like psychosis.

Keywords: subclinical hypothyroidism; hirsutism; postmenopausal; delusional disorder

Özet

Burada “delüzyonel bozukluk-somatik tip” kliniği ile başvuran, aynı zamanda yüzde hirsutizmi ve subklinik hipotiroidisi olan 51 yaşında postmenapozal bir olgu sunulmaktadır. Hastanın kan testlerinde yüksek TSH ve anti-TPO seviyeleri mevcut olup diğer kan testleri ve radyolojik incelemeler normal sınırlardadır. Tiroid işlev bozukluğu, hirsutizm ve psikoz arasındaki ilişki bu olgu çerçevesinde tartışılmıştır. Subklinik hipotiroidi ve psikotik belirtiler arasındaki ilişkiye işaret eden az sayıdaki literatür varlığında bu olgunun; klinisyenlere, endokrin bozuklukların psikiyatrik bozukluklara temel oluşturabildiğini düşünmelerini ve sadece depresyonu olan hastalarda değil psikoz gibi diğer psikiyatrik tablolarda da tiroid işlevlerini incelemelerini hatırlatması bakımından önemli olduğunu düşünmekteyiz.

Anahtar Kelimeler: subklinik hipotiroidizm; hirsutizm; postmenapozal; delüzyonel bozukluk

1. Introduction

Hypothyroidism as an endocrine disorder that is often seen in elderly females, mostly leads to affective and cognitive symptoms in patients (Heinrich & Grahm, 2003). Even patients may present to physicians with psychiatric symptoms only before emergence of physical symptoms related to thyroid function deficit. On the other hand, psychotic disorders with delusions and hallucinations might be seen in case of hypothyroidism (Haggerty et al., 1986; Westphal, 1997; Lehrmann & Jain, 2002). It was indicated that emergence of psychotic symptoms is not related to the level of thyroid hormone deficiency and these symptoms may accompany to subclinical hypothyroidism that free T3 and free T4 values are not significantly impaired (Lehrmann & Jain, 2002).

Hirsutism is another endocrine disorder that affects

mental health of women negatively and decreases quality of life (McGaffee et al., 1981). Hirsutism, which might indicate an underlying disease, is mostly idiopathic. There is also a known relation between hypothyroidism and hirsutism.

In this report, we present a postmenopausal woman who was referred to our psychiatry department with clinical presentation of “delusional disorder-somatic type” and with comorbid facial hirsutism and subclinical hypothyroidism.

2. Case

51 year old S.E., a married postmenopausal woman with 4 children, was brought to department of internal medicine of our hospital with facial hirsutism by her daughter

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and was consulted to psychiatry. She was complaining about anxiety, difficulty in breathing, insomnia, poor appetite, fatigue, sleepiness, the hair growth on her chin underneath her skin, deformation of her chin, growing of her nose hair thorough her eyes, sliding of her face skin, narrowing of her forehead, continuous move of her body hair and facial hair, contraction of her mouth, dimpling of her chin and sliding of her nose for nearly two months. It was learned that her brother, who lived abroad, went to jail for selling illegal gasoline two months ago and after this event, anxiety of the patient began and was followed by psychotic symptoms two weeks later.

2.1. Mental Status Examination

At the time of examination, her personal care was a bit poor and she was wearing a hospital mask to cover her chin. She was unable to sit because of her anxiety and had difficulty in breathing. She showed to the clinician 3-4 cm long hair on her chin, how the shape of her face was distorted and her skin was slided. She was asking for help from the doctor and complaining about somatic symptoms. Her psychomotor activity was noted to be increased. She was dysphoric and anxious, her affect was congruent with her mood and contained no lability. She was oriented to person, place, time, situation and her intellectual functioning was estimated to be average. She appeared not to maintain attention and concentration to the interviewer's tasks so the short term memory could not be assessed but long-term memory was intact. Her flow of thought was coherent and her thought content revealed somatic delusions as well as kinesthetic hallucinations. Speech was fluent and speech volume was normal. Insight and judgment were poor. Impulse control appeared to be intact.

2.2. Physical Examination

There was 3-4 cm long facial hair on her chin but no other male-type distributed hair on her body or sign of virilism was present. Body mass index of the patient was 25.1, indicating a normal weight range. Her skin examination revealed no pathology. A postoperative scar was evident on her neck relating to thyroid nodule excision. Neurological examination was normal.

2.3. Background

She had no past psychiatric history, alcohol or drug abuse and did not take concomitant medication. She had been smoking 20 cigarettes daily for thirty five years. It was learned from the patient, her daughter and medical records that her menopause started five years ago, she had a thyroid nodule excision surgery four years ago and her excess hair growth on her chin was present for twenty five years.

2.4. Family History

One of her daughters had a history of brief psychotic disorder while the other had a history of anxiety disorder.

2.5. Clinical Progress

Brief Psychiatric Rating Scale (BPRS) score of the patient was 49. She was consulted to neurology and neurological examination and cranial magnetic resonance imaging were found to be normal. She was started escitalopram 5 mg/day and pimozone 2 mg/day for psychiatric symptoms.

The patient was consulted to an endocrinologist for a detailed investigation. Results of the blood tests were; morning cortisol: 20 µg/dL (6,7-22,6), fasting blood glucose: 86 mg/dL (74-100), TSH: 8,51 µIU/mL (0,34-5,6), anti-TPO: 1070,1 IU/mL (0-9), FT4: 8,91 pmol/L (7-16), FSH: 81,6 mIU/mL (16,7-114 for menopause), LH: 23,95 mIU/mL (10,9-58,6 for menopause), DHEA-SO4: 122,6 µg/dL (7-188), free estradiol: 0,042 ng/mL (< 2), total testosterone: 22,04 ng/dL (10-75). Her laboratory findings showed normal hemogram, lipid profile, electrolyte, creatinine and liver enzyme levels. Thyroid ultrasound revealed a decreased volume of thyroid gland and parenchymal heterogeneity and roughness which was consisted with Hashimoto's thyroiditis. After two weeks that she was started psychiatric drugs her delusions and anxiety was still evident so escitalopram was increased up to 10 mg/day and she was started 25 mcg/day levothyroxine sodium by the endocrinologist.

Ten days later her delusions were weakened and functionality was improved but we couldn't associate her well-being only with levothyroxine because of other used drugs. Her gynecologic examination and transvaginal ultrasound revealed no pathology. After a brief hospitalization she was discharged with escitalopram 20 mg/day, pimozone 2 mg/day and levothyroxine sodium 25 mcg/day where her anxiety totally disappeared and her delusions were not fully improved but weakened (BPRS score 25). Written informed consent was obtained from the patient and her family allowing her medical data to be used for academic purposes.

3. Discussion

We think that a two dimensional discussion can be conducted for this particular case.

3.1. Hirsutism and thyroid dysfunction

Hirsutism is the excess growth of terminal hair in women on androgen sensitive body areas and caused by polycystic ovary syndrome, congenital adrenal hyperplasia, ovarian-adrenal tumors and some medications or could be idiopathic (Escobar-Morreale, 2010). Although there is no clear definition of idiopathic hirsutism (IH), it is diagnosed when normal ovulatory function and androgen levels are detected. Mostly increase in skin 5α-reductase activity, androgen receptor polymorphisms or altered androgen metabolism is thought to be responsible for IH (Azziz et al., 2000). Ferriman-Gallwey scoring system is a classification method for determining degree of hirsutism at 11 different body sites (a score of 0 through 4). The total score of our patient was 4 (extensive terminal hair growth) only for her chin. Presence of previous regular menstrual cycle and normal ovulatory function, normal androgen levels, normal pelvic ultrasound, no evidence

of virilism, no cranial pathology in MRI together with excluding other hirsutism causes made us diagnose IH in this patient. Thyroid dysfunction is one of causes of hirsutism, especially for congenital hypothyroidism but there is not enough evidence in literature to interrelate subclinical hypothyroidism and hirsutism (Somani et al., 2008). Because this patient's hirsutism history localized to her chin (25 years) was older than hypothyroidism history, two situations were not thought to be related. However a possible relationship between subclinical hypothyroidism and hirsutism must be taken into account when considering the well-known complex relation between thyroid hormones, sex hormone binding globulin and estrogen metabolism (Poppe & Velkeniers, 2004). On the other hand it is well-known that hirsutism with or without subclinical hypothyroidism is a challenging situation for women (McGaffee et al., 1981). Previous studies reported that psychiatric symptoms are more common among women with hirsutism (Sonino et al., 1993). Likewise content of delusions of our patient was primary about her facial hirsutism and appearance but not about other body parts.



Figure 1: The patient with hirsutism localized on the face

3.2. Hypothyroidism and psychosis

In past years when hypothyroidism wasn't treated well and myxedema presentation was more often; cases of psychotic disorders with delusions and hallucinations were reported that improved with thyroid replacement therapy (Asher, 1949). We know that our patient had been having high TSH levels for at least four years from the medical reports. Subclinical hypothyroidism prevalence is 10% and it increases to 20% for women who are 60 years and older (Haggerty et al., 1993). It was previously indicated that subclinical hypothyroidism may be responsible for thought disorders, therefore psychotic symptoms may be unrelated to level of thyroid hormone deficiency (Lehrmann & Jain, 2002).

Considering the relation of subclinical hypothyroidism with psychotic symptoms and subclinical hypothyroidism with hirsutism; we assessed this case in the light of her family history for psychiatric disorders and a vulnerable endocrine basis with stressful life events that precipitate delusional disorder. This delusional disorder was considered as a psychiatric presentation that hirsutism determined the delusional content and was precipitated by negative life events with underlying untreated chronic subclinical hypothyroidism.

To our knowledge, in literature there are only three case reports indicating a relationship with subclinical

hypothyroidism and psychotic symptoms (Haggerty et al., 1986; Lehrmann & Jain, 2002; Madhusoodanan et al., 2014). Our case is important for reminding clinicians to consider endocrine disorders providing a basis for psychiatric disorders and to investigate thyroid function deficiency not only in patients with depression but with other psychiatric presentations like psychosis.

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