# A Case of Delusional Parasitosis Dealt within the Scope of Consultation Liaison Psychiatry

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### ABSTRACT

A case of delusional parasitosis dealt within the scope of consultation liaison psychiatry

Delusional parasitosis is a rare disorder characterized by delayed admission to psychiatry clinic. This leads to time lags in diagnosis and treatment. Here we describe a woman diagnosed as organic delusional parasitosis secondary to her comorbid diabetes mellitus, hypertension and hypothyroidism. Treatment with low dose risperidone was found to be effective in a short span of time. This case is noteworthy as it emphasizes the importance of consultation-liaison psychiatry in the management of delusional parasitosis.

Keywords: Consultation liaison psychiatry, delusional parasitosis, treatment

### ÖZET

Konsültasyon liyezon psikiyatrisi kapsamında ele alınan bir delüzyonel parazitoz olgusu

Delüzyonel parazitoz nadir görülen, psikiyatriye geç başvuru nedeniyle tanı ve tedavide gecikme ile karakterize bir bozukluktur. Olgumuzda diyabet, hipertansiyon ve hipotiroidisi olan kadın hastada ikincil organik delüzyonel parazitoz tanısı düşünülmüş ve uygulanan risperidon tedavisine kısa sürede yanıt alınmıştır. Bu olgu, delüzyonel parazitozun ele alınmasında konsültasyon liyezon psikiyatrisi yaklaşımlarının önemini vurgulaması açısından dikkat çekicidir.

**Anahtar kelimeler:** Konsültasyon liyezon psikiyatrisi, delüzyonel parazitoz, tedavi



How to cite this article: Karagoz YS, Kotan Z, Kumbasar H, Erturk T, Bostanci S, Erdem C. A case of delusional parasitosis dealt within the scope of consultation liaison psychiatry. Dusunen Adam The Journal of Psychiatry and Neurological Sciences 2017;30:149-153. https://doi.org/10.5350/DAJPN2017300209

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Date of receipt / Geliş tarihi: June 27, 2016 / 27 Haziran 2016

Date of the first revision letter / llk düzeltme öneri tarihi: July 27, 2016 / 27 Temmuz 2016

Date of acceptance / Kabul tarihi: September 4, 2016 / 4 Eylül 2016

### INTRODUCTION

Delusional parasitosis is a rare disorder, characterized by patient's steady and false belief about his/her body is surrounded by parasites or small organisms, in the absence of medical evidence (1,2). The disorder was described by Thibierge as 'Acaraphobia' in 1894. In 1938, the Swedish psychiatrist Ekbom described this disorder as "Presenilin Dermatological Delusion" or "Ekbom Syndrome"(3). Delusional parasitosis is classified as "Persistent Delusional Disorder" according to ICD-10 and "Delusional Disorder, Somatic Type" according to DSM-5 (4,5).

The annual prevalence of delusional parasitosis is 80 per million, while the annual incidence is 20 per million (6). It is more common in females than males (6). Delusional parasitosis may occur as a primary or secondary disease. It may denominate as; 'Primary Psychotic Delusional Parasitosis' when there is no underlying psychiatric or organic reason, 'Secondary Functional Delusional Parasitosis' when it develops on the basis of a psychiatric illness such as schizophrenia, depression, and 'Secondary Organic Delusional Disorder' in presence of an underlying organic reason such as multiple sclerosis, diabetes, vitamin B12 deficiency, or hypertension (7-9).

In this rare disorder, patients usually complain of a sensation resembling insects crawling on or under the skin and pruritis. The patients believe that their bodies are surrounded by these insects, even though they are not afraid of insects (10,11). They may even bring shedded pieces of skin to prove their beliefs. This is called a matchbox sign (12,13). The pruritus causes the patient to admit to family medicine, internal medicine, and dermatology outpatient clinics and delays the admission to the psychiatric outpatient clinic. Complications such as iron deficiency anemia due to hemorrhage in the skin lesions, infection due to deterioration of the integrity of the skin may occur (14). Although delusional parasitosis is rare, it can easily be diagnosed if the patient admits to the psychiatric outpatient clinic. Besides the recommendations about the use of first-generation antipsychotics, especially pimozide, in the treatment of the disorder, there are also case reports suggesting that it responds well to the second generation antipsychotics as well (7). In the diagnosis and treatment of the disease, the importance of the cooperation of psychiatry with other clinics, thus the importance of the consultation liaison psychiatry (CLP) emerges.

In this paper we aimed to present a case evaluated as secondary organic delusional parasitosis, to discuss and to draw attention to this rare disorder that is characterized by delayed psychiatric admission.

## **CASE**

A 63-year-old, illiterate, married, female patient hospitalized in dermatology clinic due to infected skin lesions was referred to psychiatry clinic for consultation as she said that worms wander on her wounds. According to the medical history the complaint of itching began 4 years ago when a yellow fly that came out from a date, which was brought from abroad by her husband, bit her. After this insect bite, the patient had to scratch the skin due to itching, which resulted in scarring. The patient also began to think that little worms were crawling under these wounds.

When she admitted to a dermatology outpatient

clinic first time, she brought shedded skin parts from these injuries with the claim that it was a worm, but the worm was not detected. Despite of multiple dermatological treatments, her complaints did not diminish, and she had to be admitted to dermatology inpatient unit. During the second hospitalization she was consulted with a psychiatrist and started to take fluoxetine 20mg/day.

When she was consulted with our clinic, the patient was still taking fluoxetine 20mg/day. She still had itching on her lesions and she was complaining that worms crawling on skin lesions. She had no history of psychiatric illness. She did not use cigarettes, alcohol, or any psychoactive substance. Her premorbid features were described as intelligent, hold dear for children and skeptical. There was no record of psychiatric illness in her family history. When her general medical condition and her medications were reviewed, it was learned that she had been diagnosed with hypertension, diabetes, hypothyroidism and atherosclerotic heart disease for about 10 years. She was taking antihypertensive, oral antidiabetic drugs and Levothyroxine sodium for these diseases. She had an intravascular stent for coronary artery disease, and was operated for cerebral aneurysm 26 years ago.

In the dermatological examination of the patient; there were ulcerated lesions on both of her arms and legs, around the umbilicus, on the neck, on the upper 1/3 region of the back and over the sacrum area. Lesions have yellowish necrotic tissue overlying them, some has angular borders and diameter of the largest lesion was around 6cm. Atrophic scars, postinflammatory hypopigmentation and hyperpigmentation areas of old lesions were present in the same regions. No lesions were observed in the middle third of the back.

In the psychiatric evaluation, the patient was conscious, her cooperation and orientation was intact. Her appearance was consistent with her age and socioeconomic status. Her speech was spontaneous, clear, intelligible and purposeful. Attention, memory, and perception were in normal limits. Thought associations were organized. She had somatic delusions about worm crawling on her body lesions.

Her affect was anxious and her mood was mildly depressive. Psychomotor activity was normal. As a vegetative finding, she reported that she sometimes had difficulty in falling asleep.

Complete blood count, renal function tests, liver function tests, iron parameters, vitamin B12 and folic acid values were normal, fasting blood glucose and thyroid function tests were within normal range. The cranial magnetic resonance imaging of the patient, which was performed about 10 years ago in another center, was normal. No additional imaging could be performed due to her coronary artery stent.

Patient's mini mental state examination score was 28 and there was no sign of dementia in her anamnesis. Due to the fact that she was illiterate, Minnesota Multiphasic Personality Inventory could not be applied. She refused to continue Rorschach test with a defensive attitude after evaluating 1 card. This was evaluated in favor of psychotic features.

As a result of these evaluations, she was diagnosed with 'Secondary Organic Delusional Parasitosis' due to the presence of diabetes, hypertension and hypothyroidism, and 1mg/day risperidone treatment was started. The Dermatology Clinic was informed about the diagnosis and treatment. Dermatologist supported the patient's compliance to treatment. When the patient was assessed 3 weeks later, she did not have complaints of itching, new lesions, and no somatic delusions. The patient's treatment was continued. Patient's and her relatives' informed consent was taken.

# **DISCUSSION**

In the diffential diagnosis of the patient, besides with 'Delusional parasitosis', 'Obsessive Compulsive Disorder' and 'Skin Picking Disorder' were considered. Obsessive Compulsive Disorder diagnosis was eliminated by the fact that the patient's persistent delusional thoughts about crawling worms on her skin, even if it was confuted. Because of the lack of feeling of anxiety before picking the skin and the feeling of relief after the picking, the diagnosis of Skin Picking Disorder was eliminated. Based on the

anamnesis from the patient and her daughter, 'Delusional parasitosis' was considered. It was concluded that this disorder may have occurred secondary to hypertension, diabetes, atherosclerotic heart disease and hypothyroidism.

Delusional parasitosis is a disorder that occurs more frequently in women than in men, its frequency increases by age. The mean age of onset is 55 (15,16). Regarding the etiology of the disorder, it can occur as a primary or secondary. If the underlying cause is a disease such as diabetes, hypertension, cerebrovascular diseases, thyroid dysfunction, vitamin B12 deficiency, lymphoma or leukemia, then it is called 'Secondary Organic Delusional Parasitosis' (7). According to this information, the case is coherent with the disorder in terms of age and gender. Due to underlying diabetes, hypertension, and hypothyroidism, the patient was diagnosed with Secondary Organic Delusional Parasitosis.

Since typical antipsychotics have been successfully used in the treatment of delusional parasitosis, it has been suggested that the reduction of striatal dopamine transport function may take a part in the etiopathogenesis of the disease (17) In 1975, pimozide became an important option in the treatment because Riding and Munro (18) reported good response to pimozide in patients with the delusional disorder somatic type. Antagonistic effect of pimozide on opioid receptors was also helpful for the symptoms such as itching and paresthesia in this disorder. However, the use of atypical antipsychotics has become an option because of the late age of onset of the disease, the development of QTc prolongation, and the risk of extrapyramidal side effects due to pimozide use (6).

In the literature, a case presentation reported that after unsuccessful treatment with quetiapine, the tratment switched to 0.5mg/day risperidone, and the patient was responded to risperidone in a short time (19). There are case reports regarding the use of risperidone, quetiapine, olanzapine, amisulpride, and aripiprazole in the treatment of primary delusional parasitosis (6,20). In a study evaluating

atypical antipsychotics use in the treatment of primary and secondary delusional parasitosis, remission rates were reported as 75%, olanzapine and risperidone were the most commonly used drugs, and the drug doses were lower than the doses on the treatment of schizophrenia (21). In the view of all this information; taking the patient's age and her coronary artery disease history into consideration, 1mg/day risperidone treatment was started and treatment response was received within a short period of time, in three weeks.

The comorbidity of skin diseases and psychiatric disorders is very common (22). Collaboration of dermatology and CLP is important with regard to the diagnosis, treatment, and patient's acceptance style of the disease (23). The fact that the complaints of our patient have persisted in the past four years and the presence of many hospitalization in dermatology department in this process shows the importance of CLP. These patients usually do not want to apply to the psychiatry clinic when it is recommended. This situation leads to a delay in the diagnosis and treatment of the disorder, which is normally well-responsive to the treatment. This also leads to the consolidation of the delusions, and thus causes treatment resistance. The benefits of the collaboration

between dermatology and CLP units cannot be ignored in establishing a trust relationship between the patient and clinicians, ensuring treatment compliance and continuing communication with the psychiatrist. In conclusion; delusional parasitosis is a rare disorder. The patients seek for treatment in various departments before applying to psychiatry. In this situation, the patient is not only exposed to unnecessary medical examinations and treatments, but her admission to the psychiatry clinic to receive appropriate treatment is delayed as well. The purpose of presenting this case is to draw attention of clinicians to this rare disorder, to emphasize the importance of CLP applications and to contribute to the prevention of patients' time loss before treatment.

Contribution Categories	Name of Author
Follow up of the case	T.E., Y.S.K., Z.K., H.K.
Literature review	Y.S.K., Z.K., H.K.
Manuscript writing	Y.S.K., Z.K., H.K.
Manuscript review and revisation	H.K., C.E., S.B.

**Conflict of Interest:** Authors declared no conflict of interest.

Financial Disclosure: Authors declared no financial support.

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