

Paliperidone: another treatment option for delusional parasitosis
Ali Ercan Altinöz, Sengül Tosun Altinöz, Melike Küçükrapinar and Behçet Cosar
Australas Psychiatry published online 21 August 2014
DOI: 10.1177/1039856214546390

The online version of this article can be found at:
<http://apy.sagepub.com/content/early/2014/08/21/1039856214546390>

Published by:



<http://www.sagepublications.com>

On behalf of:



[The Royal Australian and New Zealand College of Psychiatrists](http://www.ranzcp.org)

Additional services and information for *Australasian Psychiatry* can be found at:

Email Alerts: <http://apy.sagepub.com/cgi/alerts>

Subscriptions: <http://apy.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.com/journalsPermissions.nav>

>> [OnlineFirst Version of Record](#) - Aug 21, 2014

[What is This?](#)

Paliperidone: another treatment option for delusional parasitosis

Ali Ercan Altınöz Ankara Penal Institution Campus State Hospital, Psychiatry, Ankara, Turkey

Şengül Tosun Altınöz Department of Psychiatry, Faculty of Medicine, Gazi University, Ankara, Turkey

Melike Küçükkarapınar Department of Psychiatry, Faculty of Medicine, Gazi University, Ankara, Turkey

Behçet Coşar Department of Psychiatry, Faculty of Medicine, Gazi University, Ankara, Turkey

Abstract

Objective: Patients with delusional parasitosis (DP) have a fixed belief of being infested by small pathogens. Typical and atypical antipsychotics are widely used for treating DP. There are limited controlled trials about the treatment of DP and the most useful antipsychotic agent is still unknown. Paliperidone treatment for DP will be demonstrated through two cases. One of these cases had previously used pimozide but had not responded to treatment. Both cases had remission from symptoms with paliperidone. There are only two case reports published about paliperidone treatment for DP.

Conclusion: Paliperidone appears to have promise in the treatment of DP; however, more case reports and controlled trials are required.

Keywords: delusional parasitosis, Ekblom syndrome, paliperidone, delusional disorder

Delusional parasitosis (DP) is a psychiatric disorder characterized by a fixed belief of being infested by small pathogens without supporting medical or microbiological evidence.¹

Etiological factors are used to classify this disorder. Primary DP is a mono-delusional disorder with no detectable etiological factor. It is classified as a delusional disorder somatic type in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, (DSM-5) or a persistent delusional disorder in the International Classification of Diseases, 10th Revision.^{2,3}

Detectable etiological conditions are used in order to classify secondary DP. It can occur as part of a major psychiatric illness such as schizophrenia or major depression, and due to organic brain disease such as delirium, dementia, tumors or vascular encephalopathy. It can also occur as a result of other somatic illnesses which cause pruritus or paraesthesia such as diabetes with neuropathic pain, renal or hepatic failure, cancer, and systemic rheumatic illnesses.¹ DP can be induced by substance use, such as amphetamines and cocaine or heroin withdrawal, and by prescribed medications such as antibiotics, steroids, non-steroidal anti-inflammatory drugs or dopamine agonists.^{1,4-6}

Case reports and series have reported the effectiveness of haloperidol, trifluoperazine, fluphenazine deaconate,

perphenazine, chlorpromazine, pimozide, sulpiride, sertindole, quetiapine, risperidone, and olanzapine in the treatment of delusional symptoms.^{1,7} Depot antipsychotics such as flupenthixol have also been used.¹ Pimozide, with a well-known effect on DP, has been used for many years.^{8,9} A limited number of cases with second-generation antipsychotics (such as aripiprazole, ziprasidone, olanzapine, risperidone) used in the treatment of DP have been published.^{1,7,10,11}

As there is only limited data on treatment of DP, evidence about treatment efficiency is weak. Therefore reports about treatment choices and their efficiencies for DP could contribute to the literature. This paper concerns two cases of primary DP that responded to paliperidone.

Cases

Case 1

A 72-year-old man presented to Gazi University Psychiatry Department with a 3-year-long history of

Corresponding author:

Ali Ercan Altınöz, Ankara Penal Institution Campus State Hospital, Ankara Ceza İnfaz Kurumları Kampüsü Devlet Hastanesi, Yenikent, Sincan, Ankara, Turkey.
Email: ercanaltinoz@hotmail.com

itching with the belief he had insects under his skin. He had multiple lesions related to itching and had a number of dermatologist consultations where no medical cause was identified. He was reluctant to consult with a psychiatrist.

He attended the psychiatry department due to insomnia associated with itching. He had no previous psychiatric history, and no current or previous alcohol and drug use. He also had a diagnosis of hypertension and was taking 100 mg metoprolol daily. He had no family history of any psychiatric disorder.

On mental status examination, the patient believed that insects on his body led to itching. He also believed that if he had scratched his body, the insects could have been seen under his skin. His main goal of psychiatric referral was to get medication to help him sleep. He had delusions about infection and he had no insight. He was not worried about infecting others. He did not have the matchbox sign or major depressive symptoms. He had tactile hallucinations that caused itching but he did not have visual hallucinations. His mini mental status examination score (MMSE) was 27/30 (the patient lost two points from attention and calculation (spelling "World" backwards) and one point from copying the design) and his Hamilton Depression Rating Scale score was 8, indicating no depression.

Laboratory tests including venereal disease research laboratory test (VDRL), vitamin B12, folic acid, C-reactive protein (CRP), thyroid function tests and vasculitis markers were normal. There was only minimal brain atrophy, appropriate to his age, on cranial magnetic resonance imaging (MRI).

After ruling out organic diseases and other psychiatric disorders, a diagnosis of primary delusional parasitosis (Ekbom syndrome) was made and paliperidone treatment was started 3 mg per day.

After 7 days he continued to report sleeping difficulties and a decrease in his desire to itch. He also stated that the insects were leaving his body. His paliperidone treatment dosage was increased to 6 mg/day.

After 15 days the patient reported an improvement in his sleep and a substantial decrease in the desire to itch. His paliperidone treatment was increased to 9 mg/day.

After 1 month, there were no symptoms of DP. The patient's dermatological lesions were also regressing. In his follow-up, after 3 months, he was still asymptomatic and he continued to take paliperidone 9 mg/day.

Case 2

A 68-year-old female patient was admitted to Gazi University Psychiatry Department with the complaints of pruritus, movement of the feet as if she had akathisia, and insomnia. She believed that there were parasites moving under the skin of her legs, although she had not

seen the parasites yet. Her complaints had not disappeared with scratching. She believed that she would be able to find the parasites if she could cut her skin with a knife. According to her family, her complaints had increased gradually during the last one and a half years.

The patient had no prior psychiatric history, no current or previous alcohol or drug use and no family history of any psychiatric diagnosis.

In her mental status examination, the patient believed that insects on her body caused her to itch. She also believed that if she had scratched her body, the insects could have been seen under her skin. She had also had delusions of infestation. She was not worried about spreading parasites to others. She did not have a matchbox sign or symptoms of major depression. She was not suicidal. Her MMSE score was 29/30 (the patient lost one point from copying the design) and a Hamilton Depression Rating Scale score of 10, indicating no depression.

Laboratory tests including VDRL, B12, folic acid, CRP, thyroid function tests and vasculitis markers were normal. There was only minimal brain atrophy, appropriate to her age, on cranial MRI. According to her family, she had been treated for 2 months with pimozide. Her physical examination revealed multiple scratches on her extremities.

With the diagnosis of primary DP, paliperidone treatment was started at 3 mg per day. Her complaints did not change following the first week with paliperidone, and her dose was increased to 6 mg/day. After 15 days, her complaints began to decrease. She believed that the paliperidone poisoned the parasites. The dose was increased to 9 mg/day. By the first month of the treatment, she said all of the parasites had died.

After 1 month, there were no symptoms of DP. After 3 months, the dosage of paliperidone was decreased to 6 mg/day and she remained asymptomatic at her last follow-up at 6 months.

Discussion

There is limited data for the effectiveness of atypical antipsychotics for DP. In an analysis of case reports,⁷ which examined published DP cases treated with atypical antipsychotics, risperidone and olanzapine showed similar efficacy and high rates of response.⁷ The analysis also showed that the efficacy of atypical antipsychotics was not superior to that of typical antipsychotics.

There are only two case reports in the literature about the effectiveness of paliperidone in the treatment of DP.^{12,13} The cases reported secondary DP effectively treated with 3 mg/day paliperidone. Both of these patients were over 65 years of age, and no obvious side effects or adverse events due to the use of paliperidone were observed. This shows us that paliperidone is a tolerable choice for the treatment of delusional disorder in patients over 65. The efficacy and tolerability of paliperidone in schizophrenia

have been shown in large clinical trials, and provide an advantage for elderly patients.¹⁴ We think that it would have been advantageous to follow up these patients for a longer period of time, considering they were elderly and they had mild cognitive impairment on their MMSEs. This impairment may indicate that they had early dementia, in which case DP may have been secondary to dementia rather than primary.

Paliperidone was effective in treating primary DP in these two cases. Although there are only two other case reports of successful treatment of DP with paliperidone and controlled trials are needed, paliperidone appears to have promise in the treatment of DP.

Disclosure

The authors report no conflict of interest. The authors alone are responsible for the content and writing of the paper.

References

- Freudenmann RW and Lepping P. Delusional infestation. *Clin Microbiol Rev* 2009; 22: 690–732.
- WHO. *International Statistical Classification of Diseases and Related Health Problems: Instruction manual*. World Health Organization, 2004.
- APA. *Diagnostic and Statistical Manual of Mental Disorders*, 5th Edition: DSM 5. APA.
- Johnson GC and Anton RF. Delusions of parasitosis: Differential diagnosis and treatment. *South Med J* 1985; 78: 914–918.
- Flann S, Shotbolt J, Kessel B, et al. Three cases of delusional parasitosis caused by dopamine agonists. *Clin Exp Dermatol* 2010; 35: 740–742.
- Mowla A and Asadiipooya K. Delusional parasitosis following heroin withdrawal: A case report. *Am J Addict* 2009; 18: 334–335.
- Freudenmann RW and Lepping P. Second-generation antipsychotics in primary and secondary delusional parasitosis: Outcome and efficacy. *J Clin Psychopharmacol* 2008; 28: 500–508.
- Makhija M and Bhalerao S. Reconsidering pimozide for new-onset delusions of parasitosis. *Can J Psychiatry* 2004; 49: 643–644.
- Hamann K and Avnstorp C. Delusions of infestation treated by pimozide: A double-blind crossover clinical study. *Acta Derm Venereol* 1982; 62: 55–58.
- Nakaya M. Olanzapine treatment of monosymptomatic hypochondriacal psychosis. *Gen Hosp Psychiatry* 2004; 26: 166–167.
- Freudenmann RW, Schonfeldt-Lecuona C and Lepping P. Primary delusional parasitosis treated with olanzapine. *Int Psychogeriatr* 2007; 19: 1161–1168.
- Freudenmann RW, Kuhnlein P, Lepping P, et al. Secondary delusional parasitosis treated with paliperidone. *Clin Exp Dermatol* 2009; 34: 375–377.
- Albayrak Y, Ekinci O and Ozbay SY. Primary delusional parasitosis treated effectively with paliperidone. *Isr J Psychiatry Relat Sci* 2011; 48: 291–292.
- Jones MP, Nicholl D and Trakas K. Efficacy and tolerability of paliperidone ER and other oral atypical antipsychotics in schizophrenia. *Int J Clin Pharmacol Ther* 2010; 48: 383–399.