

DELUSIONAL PARASITOSIS TREATED BY ATYPICAL ANTIPSYCHOTIC AND SELECTIVE SEROTONIN REUPTAKE INHIBITOR: A CASE REPORT

Tiffany Roulet¹ & Nicolas Zdanowicz²

¹Université Catholique de Louvain, Faculty of Medicine, Bruxelles, Belgium

²Université Catholique de Louvain, Faculty of Medicine, Psychopathology and Psychosomatic unit, Clinique universitaire UCL Mont-Godinne, Yvoir, Belgium

SUMMARY

Background: Delusional parasitosis (DP) is an uncommon psychiatric disorder. Patients suffering from this disorder have the fixed false belief of being infested by a parasite. Because of this condition, patients mainly consult with dermatologists or general practitioners. They are often reluctant to see a psychiatrist and to take treatment with antipsychotics because of their belief. The following describes the case of a woman who has the particularity that the DP started a few days after sertraline interruption. This situation raises the question of the impact of the sertraline interruption on pruritus and its role as a trigger of DP.

Subjects and methods: Case report description and research on medline, pubmed with the keyword: delusional parasitosis, Ekbom syndrome, pruritus, SSRI.

Results: Any other pathology that could explain the patient's symptomatology was excluded which allows us to diagnose this patient with DP. The disappearance of the symptoms was obtained with 200 mg of sertraline and 2 mg of risperidone. It appears that pruritus can be favored by cutaneous dryness due to age and anxiety. Symptoms of discontinuation of SSRIs may include anxiety and paresthesia.

Conclusions: The main hypothesis explaining the onset of DP would be the raise of paresthesia followed by the interruption of sertraline (discontinuation symptom) on a favorable field, which means an elderly woman of an anxious nature and having cutaneous dryness. It therefore seems necessary to discuss the discontinuation symptoms at the initiation of a treatment for this kind of patient to avoid false interpretations of skin symptoms such as paresthesia or itching.

Key words: delusional parasitosis - Ekbom syndrome - SSRI - atypical antipsychotic

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INTRODUCTION

Delusional parasitosis (DP) or Ekbom syndrome is not a common disorder in psychiatry. DP is characterized by the fixed false belief of having been infested by a parasite. The delusion persists instead of the exclusion of any infestation. An important symptom of DP is itching which can be caused by many other diseases. The etiology of DP is not fully understood, it can be caused by false interpretation of itching perceptions or by hallucinations (Bellanger 2009). Hallucinations are almost tactile or coenesthetic and sometimes visual and auditive (Berhili 2016). The patient can describe the insect crawling on his/her skin, biting and pinching sensations. Patients often tend to self-mutilate by either scratching or attempting to extract the insect (Aw 2004). The prevalence of this psychiatric disorder is difficult to determine. A descriptive study conducted by the Centers for Disease Control concludes a prevalence of 3,65 cases per 100.000 enrollees (Pearson 2012). DP affects preferably elderly and isolated women. The average age of onset of the syndrome is 55 (Pearson 2012). There are two forms of DP, primary and secondary delusional parasitosis. In the first form, the delusion of being infested by a parasite is the only manifestation. In the secondary delusional parasitosis, DP occurs secondarily to an organic disorder or a psychiatric disorder (Prakash

2012). The treatment is a neuroleptic, the most used being pimozide (Wong 2012). However, atypical antipsychotics are increasingly used because they have fewer adverse effects. Patients are often reluctant to take the medication because of their concept of the illness as a somatic problem (Lepping 2007). Moreover, the first physicians who are consulted are either general practitioners or dermatologists (Wong 2012). In this case, the particularity is that the DP started after selective serotonin reuptake inhibitor (SSRI) interruption. This situation should raise questions about the role of SSRI interruption as a trigger to the DP.

SUBJECTS AND METHODS:

Case Report

A 71 years old patient presents herself in consultation after the request of her general practitioner for delusions about a parasitic infestation. The patient has psychiatric background of depression and anorexia. She lives with her husband and has a good social status. Her treatment includes 2mg lorazepam at bedtime. She did not understand the reason why she needs to see a psychiatrist. Moreover, she seemed uncritical regarding her symptoms. The infestation delusion appeared in August 2016 while the patient was on holiday (five months before the first consultation). We should note

the sudden interruption of her treatment with sertraline (50 mg), the patient having forgotten it at home. This treatment had been in place for eight years following a depression. She convinced herself that she has insects under her skin. She said she could feel them move and could hear them. Itching was more important at the face, scalp and back. Besides, she convinced herself she was contagious and started to keep an eye on the people she was surrounded by, looking for someone who is scratching himself in order to prove she contaminated him. As a result, washing rituals were set up: abusive cleaning of her bed linen, her clothes and home, and a daily hair shampoo. Given her progressive isolation and the lack of understanding of her surroundings, the patient started to develop depressive symptoms after 4 months: loss of pleasure, suicidal thinking, guilt, sleep disorder and loss of appetite. She explained that she had already consulted several dermatologists but none of them found insects. They only found a very dry skin. She thinks the dermatologists do not know the kind of insect she is infected by. Indeed, the dermatological checkup shows only a cutaneous dryness due to aging (xerosis) and excludes any parasitosis. For this problem, topical emollients are used and have been advised to the patient.

Pruritus can be caused by many other diseases, the first additional examination requested is a complete blood test. This complementary exam is performed in order to exclude any renal insufficiency, thyroid disturbances, eosinophils rise, vitamin B12 deficiency, diabetes or syphilis infection or HIV. The results of the blood test were normal. A neurological checkup was also performed. The patient has a MMSE at 30/30. Besides, the cerebral scan showed a minor cortico-subcortical diffuse atrophy and the cerebral scintigraphy showed a sub-cortical diffuse hypo-fixation and indirect signs of cortical atrophy as well as a discrete hypofixation with anterior polarity. Nothing suggests dementia. This analysis allows us to diagnose the Ekbom syndrome.

Initially, the treatment of the patient consisted of the introduction of quetiapine at 100mg and the reintroduction of sertraline at 50mg. The quantity was progressively increased. A total remission of the depressive and anxiety symptoms was achieved thanks to 200mg sertraline. As for the parasitic delirium, a change in treatment had to be made because the patient complained of excessive sedation during the increase of quetiapine. This was therefore stopped in favor of risperidone. The disappearance of the psychotic symptoms was obtained after 1 month using 2mg risperidone. Given the low compliance with the treatment, the improvement was achieved only after 5 months of follow-up in consultation.

RESULTS

The different complementary exams performed allow us to exclude any causes that may explain the sudden onset of pruritus and psychotic symptoms. In this case, it appears that the symptoms of the patient are of psychiatric origin.

This was also confirmed by the fact that the patient responded to the treatment by sertraline (200mg) and risperidone (2mg). The treatment was well supported by the patient. Moreover, the dermatologist suggested topical emollients for xerosis.

It seems consistent that some factors favor the raise of DP like cutaneous dryness and anxiety.

Research in the literature shows that pruritus by the elderly people is mainly caused by xerosis. The skin can progressively lose its ability to retain and produce moisture. Besides, the lack of fatty acids in the skin of the elderly contributes to xerosis. Environmental factors may also play a role on the skin moisture (frequent bathing, exposure to heat in low humidity environments...) (Clerc 2016).

As for anxiety, it may be a cause of psychogenic pruritus. In a psychiatric population, it is interesting to note that there are more psychogenic pruritus in patients suffering from anxiety, depression or obsessive-compulsive disorder (Mazeh 2008). In a retrospective study, they identified that patients with psychiatric disorder (like Ekbom syndrome) had pruritus of the scalp and face more frequently than non-psychiatric patients who had pruritus (Ferm 2010).

Finally, the sudden interruption of sertraline may produce discontinuation symptoms. The most common symptoms are dizziness, fatigue, headache and nausea. But it can also include anxiety and paresthesia (Fava 2014).

It should be also noted that sertraline can be used as treatment for chronic pruritus (Mazeh 2008). Another study shows that the mechanisms involved in DP appear to have similarities with chronic pruritus from a physiological point of view. The main difference between these two pathologies lies in the interpretation of the origin of the symptoms (Kimsey 2016).

DISCUSSION

Xerosis cannot explain the sudden onset of symptomatology since it is a physiological process of age. But this is one of the factors that may explain the preferential appearance of DP in the elderly.

Regarding the treatment by sertraline, it was taken by the patient for about 8 years following a depression. A hypothesis concerning factors that favored the onset of symptoms is related to the interruption of this treatment. Because sertraline is used in the treatment of pruritus, a sudden cessation of this treatment may increase the itching. Concerning symptoms of discontinuation, paresthesia can explain the sensation of flesh crawling (formication) by our patient a few days after the interruption of sertraline. These symptoms may be interpreted by the patient as a parasitic infestation. As explained, anxiety can also increase pruritus. In this case, anxiety can be caused by discontinuation syndrome but may also be the re-emergence of an anxiety disorder.

CONCLUSIONS

Chronic pruritus and DP seem to be deeply related from a physiopathologic point of view. The main difference lies in the interpretation of symptoms.

In this case, pruritus is probably favored by several factors: xerosis, interruption of the beneficial effect of sertraline on pruritus and on anxiety and discontinuation symptoms of SSRIs.

Xerosis is a common cause of pruritus in the elderly. In this situation, xerosis alone cannot explain the sudden onset of pruritus or psychotic symptoms. But this is undoubtedly an aggravating factor.

Research shows that in the psychiatric population, pruritus appears preferentially in patients with depression, anxiety or obsessive-compulsive disorder. However, the treatment of these psychiatric disorders consists in particular in the introduction of SSRI. In practice, it is not uncommon not to give the patient information about the symptoms of SSRI discontinuation at the initiation of the treatment.

Further to the observations of this case, it seems important to inform older patients with an anxiety disorder, depression or obsessive compulsive disorder of the risk of discontinuation symptoms (including paresthesia and anxiety) when initiating SSRI treatment to limit possible interpretations of skin symptoms such as paresthesia or itching.

Acknowledgements: None.

Conflict of interest: None to declare.

Contribution of individual authors:

All authors make substantial contributions to conception and design, and/or acquisition of data, and/or analysis and interpretation of data.

References

1. Aw DCW, Thong JY & Chan HL: Delusional parasitosis: case series of 8 patients and review of literature. *Ann Acad Med Singapore* 2004; 33: 89-94.
2. Bellanger AP, Crouzet J, Boussard M, Grenouillet F, Sechter D, Capellier G, et al.: Ectoparasitosis or Ekbom syndrome? A case report. *Can Fam Physician* 2009; 55: 1089-90, 1092.
3. Berhili N, Bout A, Hlal H, Aarab C, Aalouane R & Rammouz I: Nosographic considerations on delusional parasitosis based on three clinical observations. *Pan African Medical Journal*. 2016; 24: 130.
4. Clerc CJ & Misery L: A Literature Review of Senile Pruritus: From Diagnosis to Treatment. *Acta Derm Venereol* 2017; 97: 433-440.
5. Fava GA, Gatti A, Belaise C, Guidi J & Offidani E: Withdrawal Symptoms after Selective Serotonin Reuptake Inhibitor Discontinuation: A Systematic Review. *Psychother Psychosom* 2015; 84: 72-81.
6. Ferm I, Sterner M & Wallengren J: Somatic and Psychiatric Comorbidity in Patients with Chronic Pruritus. *Acta Derm Venereol* 2010; 90: 395-400.
7. Kimsey LS: Delusional Infestation and Chronic Pruritus: A Review. *Acta Derm Venereol* 2016; 96: 298-302.
8. Lepping P, Russell I & Freudenmann RW: Antipsychotic treatment of primary delusional parasitosis Systematic review. *British Journal of Psychiatry* 2007; 191: 198-205.
9. Mazeh D, Melamed Y, Cholostoy A, Aharonovitch V, Weizman A & Yosipovitch G: Itching in the Psychiatric Ward. *Acta Derm Venereol* 2008; 88: 128-131.
10. Pearson ML, Selby JV, Katz KA, Cantrell V, Braden CR, Parise ME, et al.: Clinical, Epidemiologic, Histopathologic and Molecular Features of an Unexplained Dermopathy. *PLoS ONE*; 7(1): e29908.
11. Prakash J, Shashikumar R, Bhat PS, Srivastava K, Nath S & Rajendran A: Delusional parasitosis: Worms of the mind. *Ind Psychiatry J* 2012; 21:72-74.
12. Wong JW & Koo JYM: Delusions of Parasitosis. *Indian J Dermatol* 2013; 58:49-52.

Correspondence:

Roulet Tiffany, MD
Université Catholique de Louvain, Faculty of Medicine
1200 Bruxelles, Belgium
E-mail: tiffany.roulet@student.uclouvain.be