

## Case Report

# Ekbom Syndrome or Persistent Delirium with Somatic Symptoms: A Case Report

Salim Said, Kachouchi Aymen, Adali Imane, Manoudi Fatiha, Asri Fatima

Research Team for Mental Health, Psychiatry Department, Ibn Nafis University Hospital, Marrakech, Morocco

### Email address:

Said\_salim2002@hotmail.com (Salim Said)

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**Abstract:** Introduction: Delusional infestation (DI), also known as delusional parasitosis or Ekbom's syndrome, is characterized by a patient's fixed belief that one's skin or other parts of the body or one's immediate environment are infested with small living or inanimate pathogens, against all medical evidence for this. The delirium of infestation can however be secondary to a medical pathology, which should be sought. Case report: A 52 year old morrocan women patient who has had paresthesias in her neck and her limbs for two years. She is convinced that she is infested by a parasite that she has been drinking in a glass of water. The evolution has been marked by an accentuation of the symptomatology and recent appearance in a month of an intermittent dysphagia to the solids. The psychiatric assemssment reveals a monothematic delusional syndrome systematized with total adhesion. The patient improved on atypical antipsychotic after eight week of treatment. Conclusion: This case of Ekbom syndrome demonstrates the importance of early management of pruritus or chronic burns and of the search for an underlying organic pathology, a delirium of infestation representing a potential complication. The most important problem is the clinical management of patients because they are often reluctant to engage in a meaningful therapeutic relationship.

**Keywords:** Ekbom Syndrome, Delirium, Parasitic Infestation

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## 1. Introduction

Ekbom syndrome, or parasitosis delirium, is a rare pathology with an annual incidence of 0.5 to 0.8 cases per 1000 population worldwide [1]. The patient often tears fragments of skin trying to extract these parasites, creating skin lesions. The syndrome occurs readily in subjects with a fragile and predisposed personality [1]. In the book "Rare Psychiatric Syndromes" by David Enoch and Adrian Ball, first published with the late William Trethowan in 1967, the parasitic delusion (PD) of Ekbom's syndrome is defined as: The unshakeable belief that small vermin, insects, lice, maggots are proliferating in the skin and sometimes in the body [1]. Modern classifications place Ekbom syndrome in the persistent delusional disorders for the ICD-10 and designate it as a delusional disorder of the somatic type in the DSM V [2, 3]. From an etiological point of view, it is necessary to differentiate between primary and secondary parasitic infestation delirium [4]. In order to approach this

disorder, we propose to present a clinical case that illustrates the difficulties encountered by the practitioner when faced with this syndrome.

## 2. Case Report

The patient was 52 years old, housewife, widow for 10 years, mother of two daughters aged 26 and 16 years.

The patient presented for two years paresthesias and pruritus in her neck and limbs, she is convinced that she is infested by a parasite that she would have drunk in a glass of water. The onset of these symptoms coincided with the divorce of her older daughter and her return to the family home to live with her mother and younger sister. The mother did not accept this divorce and started to present depressive symptoms: frequent crying, moral pain and sleep disorder. Moreover, the patient consulted a general practitioner and received an antiparasitic treatment for an intestinal parasitosis, she was sure that she saw the parasite moving

during the ultrasound examination. The evolution was marked by an accentuation of the symptomatology and recent appearance for one month of an intermittent dysphagia to solids due according to the patient to the infestation of the esophagus by the parasite.

Thus, she went to the emergency room for consultation, the emergency room doctor referred her to the psychiatric consultation at the Ibn Nafis Hospital in Marrakech.

At the interview, the patient was very anxious with a state of psychic and physical tension, complained about the non-improvement in her condition and asked for a surgical procedure to extract the parasite. She presented an invasive delusional syndrome of hallucinatory mechanism, monothematic of ectoparasitic type with total adhesion, systematized with an extension in sector. There was also a moral pain, a psychomotor slowing down, ideas of self-accusation and self-depreciation, anhedonia, insomnia, emaciation. No dissociative syndrome or depersonalization was observed.

The patient was treated with risperidone (3 mg per day), lorazepam (3 mg per day), and fluoxetine (20 mg per day). After two months the patient was in partial remission of her symptoms.

### 3. Discussion

The annual prevalence of Ekbom syndrome is estimated at 80 cases per million population, with an annual incidence of 20 cases per million. It most frequently affects the female sex with a sex ratio of 2/1 to 3/1. Women over the age of 50 would be more likely to be affected [6, 7]. Before the age of 50, Ekbom syndrome is observed as often in men as in women, but it is twice as common in women after the age of 60. Menopause promotes cutaneous xerosis at this age, which can worsen the feeling of pruritus. Ekbom syndrome is also more common in emotionally isolated subjects (most of whom are women), who are generally living alone, who are unstable from the point of view of mood and who have personality abnormalities of a sensitive type (vulnerability, resistance, psychorigidity). The studies highlight the presence of a serious somatic disease with lived shame and indignity, preceding the appearance of the disease. Delusional parasitosis could be expressed during the encounter between this traumatic event, a subject vulnerable in terms of identity and a personal or cultural experience with the parasite [8]. This is consistent with our patient's situation, the emotional and physical isolation following the death of the spouse, a depressive state triggered by the divorce of her daughter and possibly a pruritus related to age (pruritus said «senile»). This type of pruritus often occurs in elderly people who are depressed, lonely, emotionally isolated, suffering from impaired perception (hearing, vision) and lack of stimulation and skin contact; it is important to identify and treat because it can promote the outbreak of a true parasitic infestation delirium [1].

Medical vagrancy is the rule, the patient consults several general practitioners, dermatologists, infectiologists before

meeting with psychiatrists. Our patient had a prescription for antiparasitics before she went to ER for her swallowing problem.

The diagnosis of Ekbom syndrome should be retained only after the elimination of other organic causes. Thus, in our patient the psychiatric examination was following the reference of somatician doctors. Neuropathy of small fibres could also be discussed in this patient. Characterized by the presence of burning neuropathic pain, predominant in the feet and lower limbs, it can take many forms [1]. The cutaneous biopsy, which allows the diagnosis to be confirmed by an objective reduction in the density and morphological changes of the nerve cells, was not done in our patient, but the favorable evolution under neuroleptic was in disfavour of this hypothesis.

Schizophrenia in which the delirium of infestation is inscribed can also be discussed in our patient. In this case, however, the delusional theme is not isolated and sectoral, it is poorly systematized; There is a disorder referring to fragmentation, even if it is on the surface. Moreover for our patient we have not diagnosed a dissociation or depersonalization.

International classifications classify Ekbom syndrome as a non-disactive delusional disorder, but it may be secondary to psychiatric disorders such as schizophrenia, mood disorders, or have an organic or psycho-psychological origin induced [9, 10].

In most cases patients with the syndrome strongly believe they are infested with parasites and it is often very difficult for them to accept the need for psychiatric assessment or treatment. They often go from one doctor to another, especially when they realize that the practitioner in front of them is not convinced by the diagnosis of a parasitic infection. Thus they resort to self-medication by using pesticides on their clothes and beds and even try to remove parasites by inflicting themselves scarifications. Ekbom syndrome remains a nosological entity that is difficult to classify from a dermatological point of view, which requires multidisciplinary care to ensure patient information, disease control and psychological support [11]. Treatment of delusional infestation is difficult, with patients generally refusing this diagnosis. The intervention of a psychiatrist and the prescription of antipsychotics are thus frequently refused. A multidisciplinary, dermatological and psychiatric approach is essential.

In our case, pruritus and paresthesias were initially the main complaint, with no established diagnosis. The long duration of symptoms and the lack of initial diagnoses are possible factors that led to the development of delirium. In the patient, the treatment made it possible to make the delirium disappear [12]. Neuroimaging studies have attempted to characterize the structural abnormalities responsible for this disorder, but the results were inconclusive given the weakness of the sample and the difference between the primary or secondary character of the disorder [13]. The body of evidence on the syndrome supports moving from the term "delirious parasitosis" to "delirious infestation", more inclusive, which would better

reflect the growing number of patients who do not believe they are infested with “parasites” but with other things [1].

If our patient had seen dermatology, psychiatric management has an important role in monitoring the disease. Some advocate the prescription of a neuroleptic by the dermatologist as well as the effective management of skin lesions, to allow the patient’s adherence to treatment and better adherence to psychiatric follow-up [1]. It is also necessary to avoid altering the sick doctor relationship by minimizing skin pain, which can lead to interruption of follow-up by the patient.

The treatment of choice is based on atypical antipsychotics. Antidepressants are also offered, depending on the clinical presentation of the patient. A severe depressive state is very often present during Ekbom syndrome; screening and management can be used to initiate specific management by the psychiatrist [1]. The emotional and economic psychosocial support of the patient’s entourage remains important for the success of management in our context. Our patient had a favorable development under antipsychotics and antidepressants, however a poor family integration and unfavorable environment make the prognosis progressive uninsured.

It is possible that delusional belief arises from the need to explain itching and paresthesia, when there is no other obvious explanation. Delusional belief may also arise spontaneously, with scratching and the use of aggressive substances providing “evidence” of a continued infestation [1]. In our first patient, the dysphagia complaint could explain the persistence of the delirium and its maintenance.

The therapeutic stage remains the great challenge for the practitioner, who should convince the patient of the usefulness of the drug intake. It is possible to optimize the therapeutic alliance and treatment adherence by focusing on side symptoms such as anxiety and depressive syndrome. Lepping and Freudmann [14] proposed the use of the following algorithm:

Eliminate a genuine infection.

Confirm parasitic delirium and eliminate other neuropsychiatric diseases.

Specify the subtype of parasitic delirium: primary or secondary (schizophrenia, depression, intoxication, brain disease or other medical condition), or delirium induced (delirium two, three).

Therapy or treatment adapted to the type of parasitic delirium.

Studies suggest that the use of neuroleptics is the basis of treatment. In a double-blind clinical trial, first-line neuroleptics would be the treatment of choice, especially Pimozide [15]. The literature review conducted by Trabert confirms this result by showing the efficacy of Pimozide in a sample of 1223 cases [5]. Pimozide is a classic neuroleptic with a marked affinity for dopamine receptor D2 and D3. It would also have an effect on endorphins that have a therapeutic impact on pruritus. On the other hand Lepping and Freudmann in a literature review prefer second-generation neuroleptics [10, 16].

## 4. Conclusion

Ekbom syndrome remains a nosological entity difficult to classify and remains a challenge for the psychiatrist in etiological and therapeutic terms. This clinical case showed the clinical difficulty to make an early diagnosis of Ekbom syndrome so to clarify the framework in which the delirium develops. Mood disorders in a context of vulnerability still remain to be eliminated before concluding to a disorder delirious to somatic symptomatology or delirium of infestation. Ekbom syndrome remains a nosological entity that is difficult to classify from a dermatological point of view, which requires multidisciplinary care to ensure patient information, disease control and psychological support. Our observations, although descriptive, offer a psycho-socio-cultural modeling that can provide support for reflection in the development of therapeutic strategies. Antipsychotics are currently the most effective treatment. It requires careful monitoring, as it has several adverse effects. For patients with concurrent depressive symptoms, the use of antidepressants is recommended.

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