



A Rare Case of an Elderly Woman with Delusional Parasitosis (Ekbom's Syndrome)

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Authors' contributions

This work was carried out in collaboration between both authors. Author ASMR designed the study and wrote the first draft of the manuscript. Author SA managed the literature searches. Both of them read and approved the final manuscript.

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Case Study

ABSTRACT

Introduction: Delusional parasitosis is a form of relatively rare psychiatric disorder in which the sufferer holds a firm false belief of their skin being infested by parasite. In 1938, scientist Ekbom published a case report detailing 8 patients suffering from this delusional perception and hence this condition is also known as Ekbom's syndrome.

Case Presentation: We present a 67-year-old normotensive non-diabetic female patient who was brought to the outpatient Department by her son with a complaint that insects are crawling under her skin. She has been suffering from this condition for three years and it was causing tremendous psychosocial and physical adverse consequences. She has never been on treatment by any specialist before but has received treatment from traditional village healers with little improvement.

Conclusion: Ekbom's syndrome is a rare yet important delusional disorder. This is a hard-to-treat condition that doctors should be aware of.

Keywords: Delusion; Ekbom's syndrome; parasitosis.

1. INTRODUCTION

Delusional parasitosis or Delusional infestation is a rare psychiatric disorder [1-3] characterized by a firm false belief held against rationality by the sufferer that s/he is infested by parasite [4]. This is also known as Ekbom's syndrome after the name of the physician reporting a case series on this. This syndrome is more than a century old disorder [5] and is an enlisted entity in Diagnostic and statistical manual 5 by American psychiatric association [6] as well as in International classification system of diseases 10 by world health organization (WHO) [7]. The incidence and prevalence of this rare syndrome is 1.9 per 100,000 and 0.18 to 4.2 per 100,000 respectively [8,9]. This disorder is more common among women particularly those above fifty years and rarely among men [10-12]. Frequently the patient is a socially isolated middle aged women with an average age of 57±14 years [13]. Ekbom's syndrome can be a primary psychiatric disorder or secondary to another psychiatric or medical illness [14,15]. Some of the common underlying medical condition that can give rise to secondary delusional parasitosis includes malignancy, infection, thyroid disorder and nutritional deficiency of vitamin B 12, B3 and folate [10-12]. Psychiatric disorders that may accompany this syndrome includes schizophrenia, depression, dementia, anxiety, and phobia [16]. Patients afflicted by this condition can suffer from months to years [17]. Although skin is the commonest organ involved, Ekbom's syndrome can also affect other organs [18]. The following case was reported after being cleared by the institutional review committee of Ad-din Sakina Medical College, Jaashore, Bangladesh.

2. CASE PRESENTATION

Mrs. X, a 67 year-old normotensive, non-diabetic women visited the outpatient department of Ad-din Sakina Medical College accompanied by her 26 years old son with the complain of sensation of insects crawling under her skin for three years. She also complained of intense itching due to the imaginary infestation. Patient was so convinced about her illness that she was surprised to see people not believing her story. While describing her ailment, she shouted on and off out of excitement as she could feel the movement of the insects under her shin. She even demanded that her problem was quite evident as countless tiny insects were falling off from her head and nose. Patient was restless during the whole consultation period and was violently itching her scalp and arms. She expressed her grief

because of her perception that, none of her family members and the physicians who treated her earlier were convinced about her serious condition. She had visited graduate physicians but was non-compliant with their treatment as she thought they were taking things lightly. The desperate family members sought help from traditional village healers who treated the patient with unknown unorthodox treatments with no improvement at all. Patient's son described how she has become isolated, stigmatized and almost home bound for her illness. The whole family had to endure the psycho-social impact of the condition. No amount of counseling by family members and peers could make the patient believe otherwise. It was tough to bring the patient this time to a Doctor's chamber because of her previous experiences of trust issue. She was conversing fluently and coherently but her topic was restricted to the insect infestation. Patient showed no sign of any abnormalities except for the delusional perception and tactile hallucination. Her vitals were normal, she had no anaemia, and there was no sign of thyroid illness or vitamin deficiency. Marks of excoriation was seen on the skin of arms, chest and scalp. Despite the prevailing problems, patient could maintain her activities of daily living at a functional level. She denied to undergo laboratory tests. Based on her clinical profile she was put on atypical anti-psychotic Olanzapine 10 mg once daily. Further follow up was discussed and planned that included plan to test for excluding possible secondary aetiology. Unfortunately, patient had not returned for further follow up visit.

3. DISCUSSION

Ekbom's syndrome is a rarely reported case in our country. Some cases have been reported in neighboring country India [19]. Although these patients commonly seek psychiatric consultation, we have received the patient in our primary care setting. Sometimes, after taking care of such patients for so long the care givers can develop delusional infestation by proxy, a type of 'folie a deux' [20]. Till date, the pathogenesis of the disease is not clearly understood. Factors that are thought to precipitate the onset of the disease include amplification of somatic sensations, an elevation of extracellular dopamine within the striatum, social isolation and stress [21]. Those who are affected by Ekbom's syndrome may also have symptoms like formication, tingling, subjective sensation of something moving under skin or even pain and

these array of symptoms are always explained by the patient by an unwavering believe of the presence of worms, insects, or other parasites [22]. Physicians must be aware of this uncommon manifestation. They often collect skin debris in a jar and demonstrate them as insects to be used as an evidence of their claim. Many a time these patients brings the specimen that they believe contains ample proof of their infestation and urge to send them into lab for testing only to get a negative result which they always denies. This phenomenon is widely known as ‘matchbox sign,’ or ‘specimen sign’ [22]. They switch from one doctor to another in a desperate search for an explanation and treatment from someone who believe what they are suffering from. Sometimes patient can engage in self harm while attempting to cleanse their body from the imagery infestation. We couldn't capture the images of the patient and her skin excoriation as she declined. Our reported case had similar features to other cases of delusional parasitosis reported in literature [23]. Treating this patients is as challenging as getting one. It is of utmost importance to gain the trust of the patient to be accepted as their collaborator and not their confronter. There is no consensus on how to treat the patients with delusional paraitosis as of today. There are some evidence base, although not very strong, in favor of using anti-psychotic medication to treat such patients. We also had prescribed the patient olanzapine which is an atypical anti-psychotic. But, refusal to receive treatment is often a problem among patients suffering from Ekbohm's syndrome [24].

4. CONCLUSION

This rare and difficult-to-treat psychiatric disorder is a classic example where care must be well orchestrated between physician and care givers. A consensus management protocol of this complex disease entity can be of tremendous help both for patient and physician alike. Patient follow-up can be assured by building and maintaining a trusted rapport with the patient.

CONSENT

As per international standard, patient's consent has been collected and preserved by the authors.

ETHICAL APPROVAL

As per international standard, written ethical approval has been collected and preserved by the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Laupland KB, Valiquette L. Delusional infestation. *Can J Infect Dis Med Microbiol.* 2016; 2016:1-4.
2. Bewley AP, Lepping P, Freudenmann RW, Taylor R. Delusional parasitosis: Time to call it delusional infestation. *Br J Dermatol.* 2010;163(1):1-2.
3. Freudenmann RW, Lepping P, Huber M, Dieckmann S, Bauer-Dubau K, Ignatius R, et al. Delusional infestation and the specimen sign: a European multicentre study in 148 consecutive cases. *Br J Dermatol.* 2012;167(2):247-51.
4. Freudenmann RW, Lepping P. Delusional infestation. *Clin Microbiol Rev.* 2009; 22(4):690-732.
5. Thibierge G. Les acrophobes. *Rev Gén Clin Thér.* 1894;8:373-376.
6. Lepping P, Huber M, Freudenmann RW. How to approach delusional infestation. *BMJ.* 2015;350. Available:<http://doi.org/cdnq>
7. APA. Diagnostic and Statistical Manual of Mental Disorders. Fifth ed. Washington, DC: American Psychiatric Association; 2013.
8. Lepping P, Baker C, Freudenmann RW. Delusional infestation in dermatology in the UK: prevalence, treatment strategies, and feasibility of a randomized controlled trial. *Clin Exp Dermatol.* 2010;35(8):841-4. Available:<http://doi.org/cswnrg>
9. Bailey CH, Andersen LK, Lowe GC, Pittelkow MR, Bostwick JM, Davis MD. A population-based study of the incidence of delusional infestation in Olmsted County, Minnesota, 1976-2010. *Br J Dermatol.* 2014;170(5):1130-5. Available:<http://doi.org/f54q9f>
10. Driscoll MS, Rothe MJ, Grant-Kels JM, Hale MS: Delusional parasitosis: A dermatologic, psychiatric and pharmacologic approach. *J Am Acad Dermatol.* 1993;29:1023–1033.
11. Ford EB, Calfee DP, Pearson RD: Delusions of intestinal parasitosis. *South Med J.* 2001;94:545–547.
12. Ait-Ameur A, Bern P, Firoloni MP, Menecier P. Delusional parasitosis or

- Ekbom's syndrome. *Rev Med Interne*. 2000;21:182–186.
13. Trabert W. 100 years of delusional parasitosis. *Psy-Chopathology*. 1995;28: 238–46.
 14. Lyell A: The Michelson lecture: Delusions of parasitosis. *Br J Dermatol*. 1983, 108:485–499.
 15. Barsky AJ, Borus JF: Functional somatic syndromes. *Ann Intern Med*. 1999; 130:910–921.
 16. Alves CJM, Martelli ACC, Fogagnolo L, et al. Sec-ondary Ekbom syndrome to organic disorder: report of three cases. *An Bras Dermatol*. 2010;85:541–4.
 17. Martins AC, Mendes CP, Nico MM. Delusional infestation: a case series from a university dermatology center in Sao Paulo, Brazil. *Int J Dermatol*. 2016;55(8): 864-8.
Available:<http://doi.org/cdn5>
 18. Meraj A, Din AU, Larsen L, Liskow BI. Self inflicted corneal abrasions due to delusional parasitosis. *BMJ Case Rep*. 2011;2011(1):1-4.
Available:<http://doi.org/dw24z5>
 19. Srinivasan TN, Suresh TR, Jayaram V, Fernandez MP. Nature and Treatment of Delusional Parasitosis: A different experience in India. *Int J Dermatol*. 1994; 33:851-5.
 20. Bourgeois ML, Duhamel P, Verdoux H. Delusional parasitosis: Folie a deux and attempted murder of a family doctor. *Br J Psychiatry*. 1992;161:709-11.
 21. Lepping P, Russel I, Freudenmann RW: Antipsychotic treatment of primary delusional parasitosis: Systematic review. *Br J Psychiatry*. 2007;191:198–205.
 22. Reich A, Kwiatkowska D, Pacan P. Delusions of parasitosis: An update. *Dermatol Ther (Heidelb)*. 2019; 9:631–638.
 23. Diaz JH, Nesbitt LT, Jr. Delusional infestations: case series, differential diagnoses, and management strategies. *J La State Med Soc*. 2014;166(4):154-9.
 24. Zomer SF, De Wit RF, Van Bronswijk JE, Nabarro G, Van Vloten WA. Delusions of parasitosis. A psychiatric disorder to be treated by dermatologists? An analysis of 33 patients. *Br J Dermatol*. 1998;138: 1030-2.

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