ACADEMIA | Letters

Ekbom's syndrome: A Scary delusional condition of "Bugs in the body."

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Ekbom's syndrome is an infrequent psychotic illness characterized by an unshakable firm belief of having been infested by bugs, worms, insects, parasites, and bacteria, whereas in reality no such infestation is present. This is a somatic type of delusional condition called Delusional Parasitosis. Here we present a rare case report, of a patient who is falsely convinced that bugs has invaded the body from toe to brain and extremely difficult to treat. This case would give an insight about the importance of cultural belief systems and native treatments adopted for the disease. It is difficult challenge for psychiatrist to establish a rapport, and to face of delusional belief with patient because patients are usually reject psychiatric referral.

Ekbom's syndrome (ES) is a somatic type of delusional condition discovered by swedish neurologist Carl Ekbom, in which sufferer having a fixed, false, and firm belief that they are infested with bugs, worms, insects, parasites or bacteria [1]. It is also called delusional parasitosis (DP), is a rare psychiatric disorder classified in the diagnostic and statistical manual of Mental disorders (DSM–5) under the delusional disorder, somatic type. Patient of ES usually seek care primarily from primary care physicians and dermatologist, and less frequently by psychiatrist, even though it is a primary psychiatric disorder [2]. The average age of onset of this illness is more than 50 years and it commonly seen in women, and male to female ratio is 1:1.5 [3].

ES classified as primary, and secondary. Primary Ekbom's syndrome consist of a primarily of a single delusional belief of having infested by parasite, it is not due to a general medical condition or substance abuse. Secondary Ekbom's syndrome associated with mental illnesses like schizophrenia, depression, and dementia and shared delusional disorder. Secondary Ekbom's syndrome is also seen in context of medical and neurological illnesses. ES

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Citation: Qureshi, S.F. (2021). Ekbom's syndrome: A Scary delusional condition of "Bugs in the body.". *Academia Letters*, Article 2133. https://doi.org/10.20935/AL2133.

can be induced by psychotropic, non-psychotropic substances, and menopausal states.

Sign of ES includes bruising, scratching, contact dermatitis, excoriation and lichenification secondary to self-inflicted scratches by which patient trying to extract the parasite. Patient collecting samples various body parts like hair, skin, and debris, such as dried scabs, dust, and lint, to their doctor to prove the infestation is real. Pruritus is most commonly seen sensation, and it found in over 80 percent of sufferers [3] associated with other feeling; such as crawling, burrowing, and biting [4]. ES patient has been known to result in suicide, but it is always life-threatening, life-altering for patients, and also people around them [5]. ES is always associated by tactile hallucination such as crawling sensation, or a feeling of biting, or stinging. ES also includes visual hallucination in which the individual perceives common material, such as lint and skin debris as a causative agent - the bugs [6]. Medications, such as phenelzine, corticosteroids, and ciprofloxacin, have been reported to cause ES [7, 8]. Cocaine abuse has long been known to be associated with this type of delusion [9].

Treatment of patients with ES is difficult because they refuse to believe there is a non-infectious reason for their illness. During treatment initially involves ruling out a general medical conditions primarily, and later to start antipsychotic medications. ES is treated with second-generation antipsychotics such as risperidone, olanzapine, or amisulpride.

A 52-year-old married, shepherd, male patient with good body built brought to emergency department in our hospital. Patient reported that he is working as a shepherd on the sheep farm. Once his sheep had an infestation of parasites, and get treated veterinarian by topical agents. Patient claimed that during that time, several of these parasites such as bugs crawled in into his skin all over the body from toe to brain. He also claimed that these bugs have severe headaches, inability to sleep at night, and due to which he becomes fearfulness and suspiciousness. He had delusion of bugs crawling all over his body from toe to brain, and it is in different shapes and size. These symptoms were present for two years.

There was no history of psychiatric illness. Patient gave a detailed description of the bug as being different shape and size which was present all over his body and crawling from toe to head, and also claimed that a bug was living in his brain. He was taken to traditional faith healer at his village, and he took native treatment to remove the bug from his body. The practicing faith healer put some type of oil into his ear and said it will spread all over his body from toe to brain and the bugs will comes out through his ears. Later he sucked the oil with the help of straw and put it into a polythene bag and claimed four to five bugs to be taken out from his ear. He gave appointment again after one week, and he did same procedure. Every time faith healer claimed to have removed bugs from his ear because of that, the belief of patient is strengthened. Further, patient also said that whenever the bugs are crawling in his abdomen, he is feeling indigestion and facing abdominal pain because bugs was biting at times to him.

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Sometime patient claimed that when the bugs will reach the brain he is feeling headache and sleep disturbance. These symptoms continued due to which his social and occupational functioning is deteriorated and no improvements seen in his condition.

Patient was referred to dermatologist and many primary care physicians and treated with topical as well oral medications but no improvement observed. When his symptoms become worse he was taken to the psychiatrist. On mental status examination, revealed increased anxiety, decreased sleep and delusion of being infested by different shape and size of bugs. No other psychopathology was seen. He has no history of substance abuse. Electroencephalography and computerized tomography scan was done, it was unremarkable. All routine investigations like complete blood count and biochemical tests were within the normal limits. Other investigations such as thyroid-function test, urinalysis, urine toxicology, B12 and folate were within normal limit. He had no history of neurological or psychiatric disorder or treated with any psychotropic drugs. There was no other underlying organic cause or functional disorder.

We diagnose a case of Ekbom's Syndrome or Delusional parasitosis, based on clinical history and after thorough investigating. Patient was given olanzapine 5 mg at bedtime which was later increased to 15 mg per day. His symptoms were reduced markedly within 3 months. Patient was referred to psychologist for psycho-education for his illness. Initially his anxiety features were disappeared, and later sleep improvement. The visual and tactile hallucination was much decreased and delusion has been subsided. At the end of 6th month the patient was asymptomatic and apparently alright.

In our patient, history of bugs crawling all over the body from toe to brain, during his sheep was treated with parasite infestation, and topical medications. The exact mechanism of the evolution of the delusion of bugs crawling in this disorder is not known. One hypothesis is said that such patients suffer a profound breakdown in their ability to discriminate between normal and abnormal somatic perceptions, and the delusion may be due to endogenous dysfunction in the limbic system. In this case report we applied careful strategy for the importance of psychiatric referral because patient rarely seeks help of a psychiatrist due to strong delusion, and as expected, the majority of the patients followed by primary care physician and dermatologists initially because of their belief in a somatic complaint. Primary care physician played important role to get aware of such illness, so early recognition, maintain good rapport with patient, and timely referral to psychiatrist is the keystone of management in such cases.

There are two subcategories: primary and secondary. When it is primary, patient is having a persistent thought of formication. In the case of secondary, there is underlying clinical, neurological, or psychiatric conditions. In our case, it is primary ES because patient is having persistent delusional thoughts of bugs crawling all over bodies, and we ruled out organic causes. Initially patient is visited to many specialists, including dermatologists, general practi-

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tioners, infectious diseases specialists, and when then symptoms were uncontrollable referral to psychiatrists resolve the symptoms. Same thing occurs in our case patient was initially took treatment from primary care physician then dermatologist and at last after deteriorated psychiatrist resolve his problem.

This case would also give an insight and throws light on the significance of cultural belief systems and native treatments in the development of ES. The patient and family members were psycho-educated in this regard for his illness and explained influence of cultural belief and native treatment in the development of such illness. Follow-up is very important, as such patients mostly do not attribute their recovery to antipsychotics, and the risk of recurrence is high after cessation of antipsychotic medication. This case report is being focused on the awareness about the disease among the health care workers. During treating the patient, a multidisciplinary approach by the cooperation between a dermatologist and a psychiatrist is necessary to provide complete and meaningful treatment for this patient. The most difficult aspect of managing this type of patients is to build a rapport with their persistence delusional ideas.

References

[1] Huber M, Kirchler E, Karner M, Pycha R. Delusional parasitosis and the dopamine transporter. A new insight of etiology? Med Hypothesis. 2007;68:1351-58.

[2] Trabert W. 100 years of delusional parasitosis. Meta-analysis of 1223 case reports. Psychopathology. 1995;28:238-46.

[3] 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;138:1030-32.

[4] Aw DC, Thong JY, Chan HL. Delusional parasitosis: case series of 8 patients and review of the literature. Ann Acad Med Singap. 2004; 33:89-94.

[5] Monk BE, Rao YJ. Delusional parasitosis with fatal outcome. Clin Exp Dermatol. 1994;19-341-42.

[5] Wenning MT, Davy LE, Catalano G, Catalano MC. Atypical antipsychotics in the treatment of delusional parasitosis. Ann Clin Psychiatry. 2003;15:233–39.

[7] Johnson GC, Anton RF. Delusions of parasitosis: differential diagnosis and treatment.

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South Med J. 1985;78:914-18.

[8] Steinert T, Studemund H. Acute delusional parasitosis under treatment with ciprofloxacin. Pharmacopsychiatry. 2006;39:159-60.

[9] Mitchell J, Vierkant AD. Delusions and hallucinations of cocaine abusers and paranoid schizophrenics: a comparative study. J Psychol. 1991;125:301-10.

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