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Case Report

Psychiatry Section

Ekbom Syndrome Occurring with Multi Infarct Dementia

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ABSTRACT

Ekbom Syndrome is characterized by delusion that small living being infests skin. The clinical profile of this disorder has shown it to be associated with organic conditions. Neuroimaging studies implicate putamen as the brain structure involved in the pathophysiology. These are also known as organic delusional disorder and provide an opportunity to study biological causation of delusional disorder. We report a patient presented with a complaint of insects crawling on her body for last two years. She collected the peeled skin in a jar and claimed that these are insects. CT scan (brain) revealed multiple infarcts involving basal ganglia. She responded to Risperidone 4 mg daily.

Keywords: Atypical antipsychotics, Delusional parasitosis, Organicity

CASE REPORT

A 65-year-old lady presented to outpatient Department of Psychiatry with complaints that three years back her son died, after which she started having less interaction with her family members. She would spend most of the time alone in her room and would often become irritable. For the past two years, she complained of insects crawling on her body. Family members did not find any such insect ever but her complaint remained persistent. She would keep scratching all over her body and picking at skin all the time badly till her skin peeled off and started to bleed. She would even use scissors to pick insects. She spent whole night scratching and picking and would sleep very less. She visited a number of dermatologists but did not get convinced even after repeated assurance. She collected her peeled skin in a small jar and presented it to therapist again and again saying that these were insects she had collected from her skin [Table/Fig-1]. Along with all these complaints, she started to forget names of her family members and important events. She would take a long time and sometime was not able to recollect names of articles and asked for food after having her meals. Gradually her condition deteriorated and would require others' help for activities of daily living. There was no significant past or family history of psychiatric illness.

General Physical Examination revealed a conscious, oriented, old aged lady, with multiple healing, bleeding and infected wounds all over her body. There were no significant findings on systemic and central nervous system examination. Mental status examination revealed delusion of parasitosis and her concentration, recent and immediate memories were impaired. Her Mini Mental state examination score was 19. She was investigated thoroughly and her Contrast Enhanced computed Tomography scanning of brain revealed multiple infarcts involving basal ganglia. She was given tablet Risperidone 2 mg which was slowly increased after two weeks to 3 mg and after another two weeks to 4 mg. Patient started improving after four weeks and her delusion was completely gone by eight weeks of treatment. Her lesions got healed and she was much better in functioning now.

DISCUSSION

Ekbom syndrome is the clinical term for delusional parasitosis, named for the Swedish neurologist, Karl A. Ekbom, who provided a definitive description of this condition, characterized by the firm conviction that small living beings infest the skin [1]. This illness comes under the category of delusional disorder (DD) named by Winokur and elaborated by Kendler [2,3].These DD can also be associated with number of organic conditions like brain tumors, dementia, diabetes, leprosy, depression and many others and in these cases, they are named as organic DD which are syndromes produced by neurological disease or toxic metabolic disorders and are associated, mainly with limbic system and basal ganglia dysfunction [4-8].

Epidemiology of organic DD is not very well studied and according to Lo et al., prevalence of organic DD is 0.4 % of total admissions and 2.9% of organic mental disorders [9]. Neuroimaging studies delineate the structural lesions in the striatum, predominantly putamen, which represents a brain area that mediates visuo – tactile perception. Disturbed functioning of the putamen and associated brain areas of the somatic/dorsal striato-thalamo- cortical loop might play an important role in the pathophysiology of delusional parasitosis, characterized by somatic delusions and tactile misperceptions [10].

Much of the literature on treatment of organic DD is in the form of case reports and case series. Treatment requires thorough investigation for the search of cause and would mainly depend upon the cause detected. With the increasing evidence, antipsychotics become the main stay of treatment along with psychosocial intervention modalities [11-14].

This is a case of Ekbom Syndrome with multi infarct dementia. A number of behavioral and psychiatric conditions are known to be associated with dementia but the delusional parasitosis in such a florid form is rarely reported. This patient would bring the specimen of her skin again and again to convince the therapist, this is a well known as matchbox sign [12]. The histopathological and microbiological examinations usually reveal peeled off skin, which was also seen in this case [Table/Fig-1].

This case also supports the evidence from neuroimaging studies in delusional parasitosis which show involvement of striatum mainly, putamen [9]. There are no randomized trials in treatment of delusional parasitosis but other trials and case reports show that both typical and atypical antipsychotics are effective [13,14]. In this case also, the patient improved on risperidone, atypical antipsychotic and her delusions were completely gone by the eighth week of treatment, again emphasizing the involvement of dopaminergic pathways in the formation of delusions [15].

[Table/Fig-1]: Matchbox sign

CONCLUSION

This is a case of with Ekbom syndrome with multi infarct dementia and emphasize that delusional disorders provide an opportunity to study biological causation like involvement of dopamine pathways and require further studies for localization of brain structures and neurochemical abnormalities involved in the formation of these delusions.

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