Morgellons disease: A myth or reality?

Sir,

The spectrum of psychodermatology is quite wide. One of the more controversial diseases in this group is Morgellons disease; where the patient usually a female, complaints of fibers of glass/other material coming out of her skin. We would like to report a case of Morgellons disease, which responded well to antipsychotic medications.

A 50-year-old married female presented with complaints of fibers coming out of her skin. Six months ago her wardrobe collapsed when she was standing next to it. She did not get any external injury but she believes that the glass particles had gotten embedded into her skin. Few days after this incident she started complaining of fibers coming out of her skin. She also complained of occasional burning, itching, disturbed sleep, and tiredness. She visited several doctors and was treated for presumed scabies and dry skin but with no relief of her symptoms. A few months later after reading about her symptoms on the Internet she diagnosed herself to be suffering from Morgellons disease. There was no significant medical history or history of any psychiatric illness in self or family.

On enquiry it was found that she had a fixed belief that the fibers were embedded in her skin and were extruding from it. She even brought the alleged fibers to us in a folded piece of paper [Figure 1].

The patient was conscious and cooperative but appeared anxious. On thorough clinical examination there were no skin lesions found anywhere on her body including excoriations.

On examining the material brought by her under the microscope we found dark-colored fine and coarse fibers some of which showed localized nodes and thread-like extensions. There was no hair, nits, or any other structure of dermatological significance [Figures 2 and 3]. We deduced that the fibers were derived from a broom stick and hence made a provisional diagnosis of Morgellons disease.

Psychiatric evaluation revealed that she had moderate depression with muttering to self, sadness of mood, easy irritability, and easy fatigability in view of the monosymptomatic hypochondriasis of the patient.

Her investigations reported an increase in serum alkaline phosphatase, deranged random blood sugar, and moderately raised C-reactive protein. The complete blood count, serum creatinine, BUN, and rest of the liver function tests were within normal limits.

She was started on tablet risperidone 2 mg at night and tablet olanzapine 0.5 mg HS along with a topical emollient as a placebo and was asked to follow up in a week. On her next visit, the patient did not show much improvement and had again gotten the fibers that she believed extruded from her skin in the last week [Figure 4]. We increased the dose of risperidone to 2 mg BD and continued the rest of her medications including the topical emollient. On her next follow up 10 days later, the patient seemed to be doing much better and said there was about 75% improvement in her symptoms [Figure 5].

The disease was first described in French children by a British physician, Sir Thomas Browne in 1674 in a monograph entitled,

Figure 1: Material brought by the patient on the first day (match box sign)

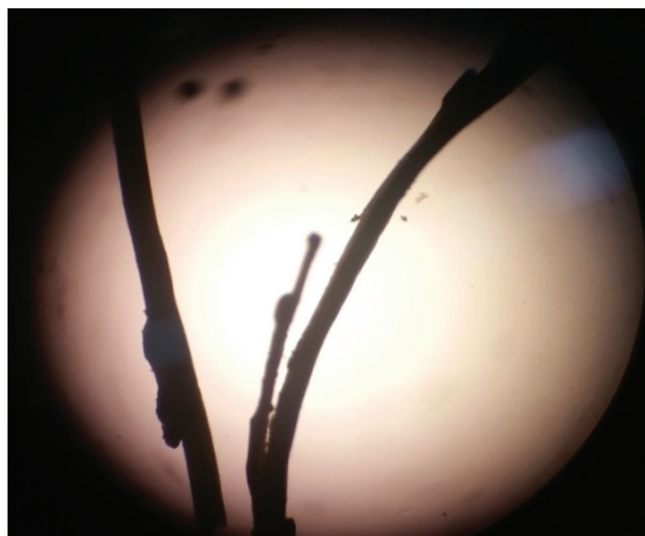

Figure 2: Microscopy of the material

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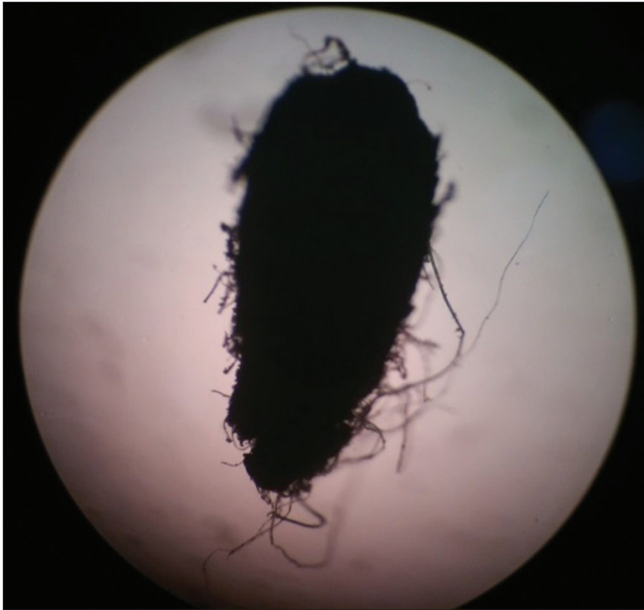

Figure 3: Dark-colored node-like structure seen on microscopic examination

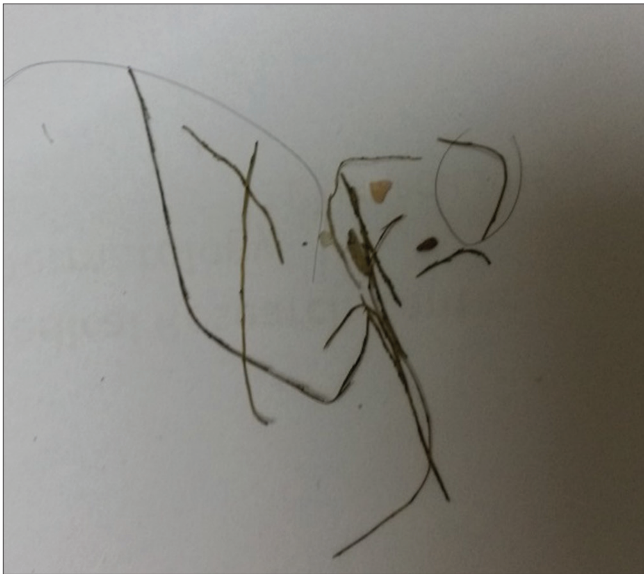

Figure 5: Marked reduction in the amount of material on the next follow up visit

"Letter to a Friend" as "that endemial distemper of children in Languedoc, called the Morgellons, wherein they critically break out with harsh hairs on their backs."[1] It was rediscovered in the beginning of this millennium by a Pennsylvania housewife, who found skin lesions associated with protruding fibers in her 2-year-old son. Having found no medical aid for this condition she established the Morgellons Research Foundation in 2002 for people suffering from similar symptoms.[2] Although the foundation initially focused only on the skin symptoms it was later learnt that cognitive decline, chronic disabling fatigue, mood disorders, and musculoskeletal pain were also closely associated with this puzzling disease.

Figure 4: Material brought on the first followup visit

Patients often complaint of burning, stinging, and crawling sensation underneath their skin along with fibers or threads coming off their skin, which may or may not be associated with itching and pain. They also have difficulty in falling asleep and give a history of chronic fatigue. The disease is more commonly found in educated women in their fourth or fifth decade and more often than not they have either read about it on the Internet or heard about similar stories from friends and relatives and they diagnose themselves as having it. It had been said to be a disease 'spread via media.'[3]

Until recently Morgellons disease was considered to be a subtype of delusion of parasitosis but is now considered a distinct disease. The other differential diagnosis are scabies, drug-induced formication, perforating dermatoses, and the tropical dermatoses.

A lot of debate has been going on about the cause of this mysterious disease. While some believe it to be a form of delusion of parasitosis, others associate it with Lyme's disease, caused by tick-borne pathogens such as *Borrelia burgdorferi*.[4] A plant pathogen *Agrobacterium* has also been implicated in the skin lesions of these patients. However there was no infectious cause or any evidence of an environmental link found in an extensive study of 115 case-patients conducted by the CDC in Northern California.[5] A study of 25 self-defined patients of Morgellons disease concluded it to be a physical illness commonly associated with a delusional component.[6]

In spite of a number of proposed etiologies, we still do not know the exact cause of this cryptic illness and it continues to be a medical mystery.

Treatment: Drugs of choice are second-generation or "atypical" antipsychotics such as risperidone, amisulpride, or olanzapine.[7] Earlier pimozide was the treatment of choice but

is no longer used owing to serious adverse effects such as QT interval prolongation, arrhythmias, and torsades de pointes. For better management of such patients the dermatologists must be in close collaboration with the psychiatrists.

We present this case of Morgellons disease due to its rarity and to highlight the various controversies associated with this poorly defined illness. We were unable to find any prior reports of this disease in India.

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Conflicts of interest

There are no conflicts of interest.

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