



## Morgellons Disease: An Urban Legend?

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Morgellons (also known as Morgellons disease or Morgellons syndrome) is believed to be a delusional disorder characterized by the patient's firm belief that he/she is infested by agents such as insects/parasites which causes hair or other fibers to grow from her body. It is a type of *Delusional Parasitosis*.

Patients with delusional parasitosis are more commonly recognized in dermatology practices today.<sup>1</sup> Patients diagnosed to have Morgellons may exhibit a host of cutaneous symptoms such as crawling, biting and stinging sensations, unusual fibers being shed from the skin and persistent skin lesions such as rashes.

While the validity of the diagnosis is in question, the impact on patient's lives is real, often debilitating, and bears more examination.<sup>2</sup>

### History

In 2001, Mary Leita, a stay at home mother (with a background of having studied biology) claimed that her two year old son developed sores under his lip and began to complain of "bugs". She claimed that the sores were made of red, blue, black and white fibers. After failing with many local doctors, she consulted a panel of doctors from Johns Hopkins University who concluded

Leita herself may have 'Munchausen's by proxy', a syndrome characterized by a parent pretending a child is sick or making him sick to get attention from the medical system.

Leita however felt that her son had some unknown disease. She then chose the name Morgellons disease from the description of an illness that she had read in the medical case-history essay by Sir Thomas Browne titled '*A Letter to a Friend*' (c. 1656, pub. 1690) in which the author describes several medical conditions, including "that endemial distemper of children in Languedoc, called the *morgellons*, wherein they critically break out harsh hairs on their backs".<sup>3</sup>

### Case Report

A 50-year-old married female presented with complaints of fibers coming out of her skin in the Department of Dermatology in a Tertiary care hospital in the city of Navi Mumbai, Maharashtra, India. Patient also reported of itching and occasional burning sensation from her skin. A thorough head to toe examination done by the dermatologists did not reveal any skin lesions. Patient had also brought physical proof of the fibers she claimed had 'fallen' off her body. The expert opinion of the dermatologists after viewing

these fibers was that they were not human tissue and probably were broom fibers. Patient was then referred to the Department of Psychiatry for further evaluation.

Patient's husband had accompanied her. The patient looked highly perturbed and distressed at the onset of the interview. She had a Masters degree in humanities and previously worked as a teacher in a local school but currently was a homemaker for the past five years. Patient presented to us with similar complaints as described above, stating that the symptoms have been present for the past two and a half months. Patient also gave history suggestive of depressive features which included a pervasive sadness of mood, easy irritability, loss of interest in previously pleasurable activities, loss of appetite and disturbed sleep secondary to the 'fibers falling out of her body'. She lost interest as well as concentration in other activities and would often be preoccupied regarding thoughts about her 'condition'. On further probing, patient revealed that about two months ago her wardrobe collapsed right in front of her when she was cleaning her room leading to the mirror on the wardrobe to shatter into pieces. She didn't sustain any external injuries but believed that the glass particles from the shattered mirror had gotten embedded into her skin. A few days after this incident she complained of severe itching on multiple sites of her body following which she started complaining of fibers coming out of her skin. Other symptoms included occasional burning sensation of the skin, disturbed sleep and increasing fatigue. She visited a local doctor and was treated for presumed scabies and dry skin but found no relief in her symptoms. A month later after having gone to various doctors and having no success in getting relief, patient started reading about her symptoms on the internet. After voraciously going through scores of articles regarding her symptoms, she diagnosed herself to be suffering from Morgellons disease. Following this, patient had come to the Department of Dermatology as described above.

A detailed history of the past revealed no significant medical or surgical co-morbidities. There was no history suggestive of substance use barring from a few social drinks. There was no significant medical history or history of any psychiatric illness in self or family.

Physical examination was unremarkable and patient's vitals were within normal limits.

Patient's *Mental Status examination* revealed that patient was conscious, co-operative, communicative and was well oriented to time, place and person.

Her mood however was sad and she had a mood congruent distressed affect. She also had Delusion of fibers falling from her body.

We challenged this belief of hers and tried to shake the idea of fibers falling off her body, but to no avail.

### Investigations

A sample of the fibers was sent for evaluation under microscopy, which revealed dark-colored fine and coarse fibers but nothing of dermatological significance. We deduced that the fibers were derived from a broomstick and hence made a provisional diagnosis of Morgellons disease.



**Figure:** Macroscopic & microscopic images of the fibers brought.

Routine blood investigations & ECG did not reveal any anomalies.

### Treatment

Patient was started on 2mg of Risperidone in divided doses and asked to follow up after a

period of ten days. On her subsequent follow-ups, patient revealed some amount of improvement and hence her risperidone was increased to a dose of a total of 8 mg (4mg of Trihexyphenidyl was also added so as to avoid *extrapyramidal symptoms*). With this dose patient reported an improvement of 70 percent.

At this point of time, 2 mg of Pimozide was added and patient came back after a month claiming that the fibers had stopped falling from her body parts.

## Discussion

### Causes

- Delusional Parasitosis (DP): Most psychiatrists believe Morgellons to be a part of the spectrum of DP. Such patients hold a false belief that they are infested with parasites, insects, or other pathogens. They may experience *formication*, a sensation resembling insects crawling on or under the skin. Patients with this condition often collect specimen, in order to show as proof to doctors, bringing them in small containers, the phenomenology being termed as *matchbox sign*.
  - Some associate it with Lyme's disease, caused by tick-borne pathogens such as *Borrelia* implicated in the skin lesions of these patients.<sup>4</sup> 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.<sup>5</sup>
- A. A study of 25 self-defined patients of Morgellons disease concluded it to be a physical illness commonly associated with a delusional component.<sup>6</sup>
- Internet and Media Influence  
People usually self-diagnose Morgellons based on information from the Internet and find support and confirmation in online communities of people with similar illness beliefs.

It has been said to be a disease 'spread via media'.<sup>7</sup>

### Signs & Symptoms

The main symptom is "*a fixed belief*" that fibers are embedded in or extruding from the skin. They may also believe that they are infested either by insects, parasite or hair.

Delusional infestation challenges the infectious disease specialist who must diligently rule out the presence of a true infection.<sup>8</sup>

### Differential Diagnosis

Underlying Scabies, allergic dermatitis & contact dermatitis can all be self diagnosed as Morgellons.

### Treatment

1. The conventional antipsychotic most commonly used has been pimozide,<sup>9</sup> which also has an antipruritic action. However, due to its cardiac side effects, atypical antipsychotics like olanzapine & risperidone are preferred nowadays.
2. Many patients insist upon treatment from dermatologists, who may add an emollient which helps as a placebo.
3. Another very commonly used method is self treatment by the patients, following research conducted off the internet which may include usage of bleach, insecticides and even veterinary medication, all of which are toxic for the body.

### Conclusion

With advancing technology, the usage of internet is at the fingertip of nearly all patients. Needless to say that this technological boon is a double edged sword. This brings a lot of awareness amongst patients but at the same time brings a lot of self-diagnosis, self-treatment and paranoia.

Morgellons is a disease which has mainly been propagated by the media. The disease itself is very rare and we were not able to locate any prior reports of this disease in India. It is a disease in which the patient has very poor insight and hence

generally refuses any kind of psychiatric care. The goal of the doctor should be to establish trust with the patient, not be dismissive of their claims and to listen to them earnestly. A supportive and non confrontational method is ideal. All organic dermatological diagnoses should be ruled out prior to initiation of any psychotropic treatment. The patient should be dealt by a team comprising of psychiatrist, dermatologist, microbiologist, psychologist and most importantly family members for constant support.

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