

Infectious Disease Epidemiology Section Office of Public Health, Louisiana Dept of Health & Hospitals 800-256-2748 (24 hr number) www.infectiousdisease.dhh.louisiana.gov

Delusional Parasitosis and Morgellons Disease

Revised 02/28/2012

Delusional Parasitosis

Delusional parasitosis, also known as Ekbom's syndrome, is a form of psychosis whose victims acquire a strong delusional belief that they are infested with parasites, whereas in reality no such parasites are present. Very often the imaginary parasites are reported as being "bugs" or insects crawling on or under the skin; in these cases the experience of the sensation (known as formication) may provide the basis for this belief. Delusional parasitosis, with symptoms that have "extraordinary similarities" to Morgellons, has been described in the medical literature for over 75 years.

The false belief of delusional parasitosis stands in contrast to actual cases of parasitosis, such as scabies.

People with delusional parasitosis are likely to ask for help not from psychiatrists but from dermatologists, veterinarians, pest control specialists, or entomologists. Because delusional parasitosis is not at all well known to non-specialists, under those circumstances the condition often goes undiagnosed, or may be incorrectly diagnosed.

Delusional parasitosis is seen more commonly in women; the frequency is much higher past the age of 40 years.

<u>Presentation</u>: Details of delusional parasitosis vary among sufferers, but is most commonly described as involving:

- <u>Perceived parasites crawling</u> upon or burrowing into the skin, sometimes accompanied by an actual physical sensation (<u>formication</u>).
- <u>Self mutilation</u>: Individuals suffering from this condition may develop elaborate rituals of inspection and cleansing to locate and remove "parasites" and fibers, resulting in a form of self-mutilation; they injure themselves in attempts to be rid of the "parasites" by picking at the skin, causing lesions, and then pick at the lesions, preventing them from healing.
- Folie en famille: Some are able to induce the condition in others through suggestion, in which case the term 'folie à deux' may be applicable. A significant minority of delusional parasitosis cases occur in groups of two, three, or more individuals in close proximity, even families, known by the French terms 'folie à deux', 'folie à trois', and 'folie en famille'.
- <u>The match box sign</u>: Nearly any marking upon the skin, or small object or particle found on the person or their clothing, can be interpreted as evidence for the parasitic in-

festation, and sufferers commonly compulsively gather such "evidence", and then present it to medical professionals when seeking help. This presenting of "evidence" is known as "the matchbox sign" because the "evidence" is frequently presented in a small container, such as a matchbox

• Symptoms associated with delusional parasitosis, including urticaria (hives), paresthesia (unexplained tingling sensations in the skin), and pruritus, are common sideeffects of many prescription drugs or drug abuse. The sensations are real, but the attribution of the sensations to unknown parasites along with the collection of fibers is part of the delusion.

<u>Delusory Cleptoparasitosis</u>: A form of delusion of parasitosis where the sufferer believes the infestation is in their dwelling, rather than on or in their body.

<u>Treatment</u>: It is also characteristic that sufferers will reject the diagnosis of delusional parasitosis by medical professionals; very few are willing to be treated, despite demonstrable efficacy of treatment.

Treatment of secondary forms of delusional parasitosis are addressed by treating the primary associated psychological or physical condition. The primary form is treated much as other delusional disorders and schizophrenia. In the past, pimozide was the drug of choice when selecting from typical antipsychotics. Currently, atypical antipsychotics such as olanzapine or risperidone, are used as first line treatment.

Morgellons

The term "Morgellons" was introduced by Leitao in 2004 to describe a skin condition characterized by a range of cutaneous (skin) symptoms including crawling, biting, and stinging sensations, finding fibers on or under the skin, and persistent skin lesions (e.g., rashes or sores). A majority of health professionals, including most dermatologists, regard Morgellons as a manifestation of other known medical conditions, including delusional parasitosis and believe any fibers found are from textiles, such as clothing. The Morgellons Research Foundation, a non-profit advocacy organization, believes that it is a new infectious disease that will be confirmed by future research. Other health professionals do not acknowledge Morgellons disease, or are reserving judgment until more is known about the condition.

<u>Mayo Clinic Study</u>: A study conducted of 108 patients at the Mayo Clinic was published in the Archives of Dermatology on May 16, 2011. The study failed to find evidence of skin infestation despite doing skin biopsies and examining specimens provided by the patients. The study, which was conducted between 2001 and 2007, concluded that the feeling of skin infestation was a delusion - delusional parasitosis.

<u>CDC Investigation of Morgellons</u>: Following a mailing campaign coordinated by the Morgellons Research Foundation in which self-described sufferers clicked on the foundation Web site and sent thousands of form letters to members of Congress, a Centers for Disease Control and Prevention (CDC) task force first met in June 2006. The task force

consisted of 12 people, including two pathologists, a toxicologist, an ethicist, a mental health expert and specialists in infectious, parasitic, environmental and chronic diseases.

In June 2007, the CDC opened a website on "Unexplained Dermopathy (aka 'Morgellons'). By November 2007, the CDC had announced an investigation process, stating that, "The primary goals of the investigation are to better describe the clinical and epidemiologic features of this condition and to generate hypotheses about possible risk factors." Kaiser Permanente in Northern California was chosen to assist with the investigation, which began after the scientific protocols and a review board structure had been prepared and approved. Investigators planned to report on the geographic distribution of the illness, and estimate rates of illness in affected communities. The investigation involved skin biopsies from affected patients, and characterization of foreign material such as fibers or threads obtained from patients to determine their potential source.

In January 2008 it was reported that the CDC was enlisting the aid of the U.S. Armed Forces Institute of Pathology and the American Academy of Dermatology "to conduct 'immediate' and 'rigorous' research."

On January 25, 2012 the CDC released the results of the study - finding no infectious or environmental links. The study consisted of skin biopsies, blood tests, and interviews of over 100 Morgellons patients; it yielded no evidence of an infection (bacterial, fungal, or otherwise), or common environmental factor causing the problems. Laboratory analysis of the threads found by participants revealed nothing unusual, but consisted of cotton and other materials likely to be found in clothing. The researchers could not find any explanation for sensations participants reported under their skin and suggested these could be "delusional infestation," wherein people falsely believe their bodies are being invaded by small organisms. Various Morgellons groups responded to the results of the studies by saying it confirmed their expectations that the government-run study is trying to cover up larger issues. Jan Smith, owner and operator of "Morgellons Exposed", a site which hosts her theories on the cause of Morgellons (including alien nano-technology implants), believed the problem was more than a medical condition and responded, "There's something being hidden."