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Unusual Findings in Morgellons Disease and Delusions of Parasitosis

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Authors' contributions

This work was carried out in collaboration between all authors. All authors read and approved the final manuscript.

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Case Report

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ABSTRACT

We are presenting four new cases of delusions of parasitosis, two of which also had features of Morgellons disease. This illustrates the difficulties in therapy of these patients having almost universal refusal to accept the psychiatric component. Two of the patients responded to treatment while two did not. Of the two responders one was lost to follow up. The recommended treatments of pimozide, lexapro, and risperdone are examined. These rare diseases continue to be a challenge to the dermatologic community.

Keywords: Delusions of parasitosis; morgellons disease; parasitosis treatment; psychodermatosis.

1. INTRODUCTION

The skin and psychiatric disorder known as delusions of parasitosis is a monosymptomatic psychosis manifested by the fixed false belief that insects are crawling over the skin or erupting from body parts including eyes, ears, scalp, or genitalia [1,2]. Morgellons disease is a

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closely related disorder or subset in which the patients observe strings of white material coming out of the skin. In the following report two of the patients showed features of both disorders at the same time.

We have recently been referred a number of patients with delusions of bugs, strings, or just crawling sensations in the skin wherein no infection, parasite, or other tangible factor could be ascertained as the cause of the afflictions as believed by the patients. This is the first report of a patient who stated she saw a tiny statue of an elephant emerging from the skin on her leg. Previously, the same patient who had brought in samples of debris (Photo 1) had also brought in a bedbug. This finding further complicated the diagnosis and treatment (which to this day has not been successful). The four patients we describe exhibit the successes and difficulties encountered in therapy of these disorders which range from much success to lack of any response at all. Another patient was using a type of electric pulse machine to kill the " demodex bugs" she insisted were coming out of her skin, eyes, nose, and genitalia. This is the first report of a patient using such a machine in search of relief from the delusions of parasitosis. The treatment was initiated by the patient herself after consultation and recommendation by a holistic healer.

A third patient illustrates that notable improvement of symptoms can be attained in therapy with psychotropic drugs, in this case, risperidone. All of the patients reported herein described a traumatic experience in their lives which very likely acted as a precipitating cause. Such precipitating factors have been previously described as operative in these diseases (1). The fourth patient was the only male in our current series, and he showed the fastest clinical response, possibly because his symptoms were the mildest to begin with.

2. CASE REPORT 1

A 54-year-old Caucasian female was referred by another dermatologist for evaluation of delusions of parasitosis. She complained that demodex mites were on her scalp, face, eyelashes, and genitalia, causing her disturbing, crawling, sensations. The patient indicated that six months previously she first saw demodex mites all over her body wherever hair was distributed. She felt she contracted the infection from her pet ferrets while staying in motel rooms on a journey eastward from her home state in the western U.S. She was travelling due to failure in her business ventures which had plummeted due to the economy and came as a source of great concern. She voiced fears the mites might cut off her breathing and kill her as they were "exploding" in her nose as well as hair, ears, eyes, torso and genitalia. She started shaving her eyebrows and eyelids (Photo 2). The itching in the scalp resulted in excoriations from scratching. In the previous six months she had been treating herself with several topical creams and solutions including permethrin prescribed by one of a number of dermatologists she had consulted with no success. Additional treatments she tried were clobex spray, clobetasol solution, and tea tree oil. She had also consulted a holistic medical practitioner on the advice of a friend, who recommended using a machine. The patient felt that the mites were electrocuted by the machine's waves but that the eggs laid by the mites were not affected which necessitated her to keep repeating the treatments.

2.1 History

The history was negative for prior heart disease, diabetes, or hypertension.

2.2.1 Physical examination

Physical examination revealed a thin and haggard looking, highly agitated 54-year-old female. Complete skin examination revealed a few excoriations on the forehead and scalp. There were no mites, lice or other parasites detected. The wrists showed contact dermatitis bilaterally where she had strapped on the "broadcast wave machine" (Photo 3). Examination of the genitalia revealed she was clean shaven with no visible mites.

2.2.2 Diagnosis treatment and follow up

Based on the clinical presentation and physical examination the patient was diagnosed with delusions of parasitosis. The patient was offered extensive testing and consultation with social service, psychology and psychiatry but she refused because she was adamant in her belief that there was no psychiatric element and she wished to return home hoping to obtain treatment there and to resuscitate her business. She felt numerous financial issues were paralyzing her judgment. She was given Taclonex scalp solution samples as she claimed she had no funds to purchase any medication.

She refused pimozide or risperidone therapy. She called several times thereafter to report dissatisfaction in finding any help in her home city or state and was lost to follow up.

3. CASE REPORT 2

A 66 -year-old female was referred by another dermatologist for delusions of parasitosis. She presented with a body rash that she first noticed in 2011, and started self-treatment with over the counter medications, including allegra and eucerin lotion with no improvement at all. In June 2013 after a cholecystectomy she noticed that the rash was all over her body and saw a "dead fly" in her stool and believed it came out of her body and not anywhere else, but denied use of any medication treatment to relieve the symptoms at that time. She had been pulling out the "hard substances and strings" in her skin with a tweezers and she voiced that she used a pumice stone for roughness on her elbows and legs to "soften" her skin. The elbow lesions were previously diagnosed as psoriasis. Between 2011 and 2014 she had seen 12 dermatologists. One of them diagnosed spongiotic dermatitis and prescribed Bactrim, Clindamycin lotion, and Clobetasol ointment. Another dermatologist told her it was all nerves and that she needed a psychiatrist. This angered her and she kept on going to additional dermatologists. She was seen by psychologist in 2006 after a beauty treatment that caused hair loss. She has been under the pain management care since 2006 for spinal stenosis with intractable back pain which she was told could not be operated on since her skin condition was extensive.

3.1 Past Medical and Surgical History

She had a malignant melanoma of the left inner thigh removed in 2009 with no recurrence, as well as a squamous cell cancer of the skin. She also suffered from recurrent herpes simplex infection of the buttocks for years and took valtrex when needed.

3.1.1 Medications

Endocet, zanaflex, restoril, Xanax, Elavil, Lidoderm patches, Compazine, Lipitor, Protonix, valtrex, Pataday eye drops, diflucan, calcium, senna, amitriptyline, clobetasol ointment.

Several skin biopsies were taken by several different dermatologists with the following reports:

Ten separate skin biopsies were taken from various involved areas including the legs and arms as well as from material brought in by the patient. These specimens were taken by six different dermatologists. The results showed: dyskeratosis, non-specific erosion, solar damaged skin, traumatized skin, parakeratosis, crust and foreign material bandage fibers, verrucoid keratosis. One specimen brought in by the patient showed portions of arthropod diagnosed as bed bug.

3.1.2 Physical examination

Physical exam revealed bilateral elbows with localized well circumscribed patches and hyperkeratotic plaques with overly diffuse scales. The scale was shiny and silvery. Multiple reddish papules, plaques, purpura and excoriations were seen on the arms and legs. Photo 4).

3.1.3 Diagnosis treatment and followup

The diagnosis was delusions of parasitosis and Morgellons disease. She was referred to a social worker to discuss her life problems including loss of finances in a business transaction, and a troublesome, long term relationship with a boyfriend. She was unable to take one of the medications for delusions/Morgellons such as risperidone or pimozide due to poor interactions with the pain medication regimen she required for long term back pain. Escalipotram (Lexapro) had been prescribed by another physician but the patient claimed she was unable to take it because it didn't agree with her. She was referred to a psychiatrist specializing in psychopharmacology to assist in obtaining a potentially relevant medication. She was treated with kenalog ointment and emollient. She was given supportive biweekly therapy in the dermatology office, and after two months reported feeling somewhat better but still felt she needed a tweezer to remove occasional strings coming out of her skin. At this writing she has been under psychologic counseling but has as yet to consult with a psychopharmacologist. At the last followup visit she reported thousands of white shreds falling off her body in the shower and had to remove a tiny statue of an elephant which was protruding out of the skin on her leg. At the time of the last office visit she pricked an erosion in the skin of her arm which caused bleeding and required bandaging. She is still awaiting consult with a psychopharmacologist.

Blood work from August 2013, WNL including CBC Chem screen ANA and hepatitis profile. Stool for ova and parasites was negative.

4. CASE REPORT 3

A 65 year old African American female was seen by several dermatologists for a year with no improvement and was referred to our clinic for further evaluation of the feeling that "bugs are crawling on me". She felt that the bugs were getting into her organs. In addition she found fibers jumping out of her skin. She was convinced she had scabies. To get rid of the bugs she vacuums several times throughout the day, air dries her clothing and avoids close contact with other people as much as possible. For the past year she has been treating herself with over the counter medications and topical creams including Permethrin prescribed by one of the dermatologists she had consulted with no success. She verbalized that she has a psychiatrist but she has not discussed the above problem with him. At times she was tearful and felt the bugs were interfering with her life. The history revealed asthma and hypertension. Skin examination revealed no evidence of scabies or mite infestation. Based on the clinical presentation and physical exam delusions of parasitosis with features of Morgellons disease was diagnosed. The patient and the psychiatrist were agreeable to treatment with risperidone 0.5 mg bid. In addition the patient was given emollients and kenalog cream. Within 3 weeks there was marked improvement and the patient was troubled little by any crawling sensations. At the present time the dosage of resperidone has been reduced to 0.25 mg hs and she continues to be followed in the dermatology clinic.

5. CASE REPORT 4

A 73 year old male was referred from a large medical school dermatology practice for treatment of delusions of parasitosis. The patient complained of itching and bugs crawling on the legs arms and trunk. He felt he was been bitten by the bugs. He also stated that he saw " white stuff coming out of the skin". He said the problem started when he changed his old mattress. He saw black spots on the new mattress and decided he had bed bugs. The patient first saw his PCP and received five treatments of permethrin cream with no improvement. He then went to a medical center dermatologist complaining of white mites on the skin and under the fingernails which caused him to scratch. Hydroxyzine prescribed by a previous dermatologist did not help. The onset of the sensation of been bitten by bugs coincided with the time he was diagnosed with liver cancer. He had a history of hepatitis A, B and C and cirrhosis of the liver on a waiting list for a liver transplant. Examination revealed scattered excoriations on the legs with a few small papules. See photo (5). A biopsy of one papule on the right thigh was performed.

The results of the biopsy showed no evident of parasites. The final diagnosis was crusted granulation tissue consistent with trauma.

Based on the history and physical findings the diagnosis of delusions of parasitosis with features of Morgellons disease was made. The patient was treated with triamcinolone cream.1% b.i.d., lexapro 20 mg at night, and xyzol 5 mg in the morning. The patient returned 3 weeks later and reported improvement. The patient was told to continue treatment and to follow up in a month.

6. DISCUSSION

Delusions of parasitosis has also been referred to as Ekbom's syndrome, or dermatophobia [3]. It is a monosymptomatic psychotic delusion of infestation with parasites (bugs, mites, demodex, parasites, etc.) Morgellons patients suffer the delusion that fibers or strings are coming out of their skin. Although the two diseases are different in this regard our patients showed overlap.

These four cases illustrate the complexities and difficulties in treatment of patients with delusions pertaining to the skin. They also illustrate that features of Morgellons disease can also be present at the same time as symptoms of delusions of parasitosis. The first patient illustrates the self usage of an electric powered machine for relief of symptoms which has never before been reported.

Although it has been reported that these diseases can remit on their own without intervening psychotropic care, that was not the sequence observed in the patients we presented [4]. There is wide disparity in severity of the patients' symptoms which possibly accounts for the responses to therapy. Lepping and Freudenmann [3] indicated pimozide has too many adverse reactions to be considered as the treatment of choice for delusions of parasitosis,

although it has been shown to be effective in some patients [5]. Among the potential serious side effects of pimozide are cardiac and extrapyramidal abnormalities. Elmer et al. [6] indicated that risperidone should be considered as the first treatment of choice although in our second patient we were unable to prescribe this drug due to interactions with the patient's pain medications. Previously (1) lexapro was used in several patients with less severe symptomatology which led us to use this antidepressant in the fourth patient. The third patient showed marked improvement in symptoms after a month of risperidone therapy coupled with weekly supportive visits to the clinic. Her skin remains clear. These four patients illustrate the wide disparity in presentation of history, signs, and symptoms as well as in the success/failure ratio in treatment responses in these disorders.

Legends and Photographs

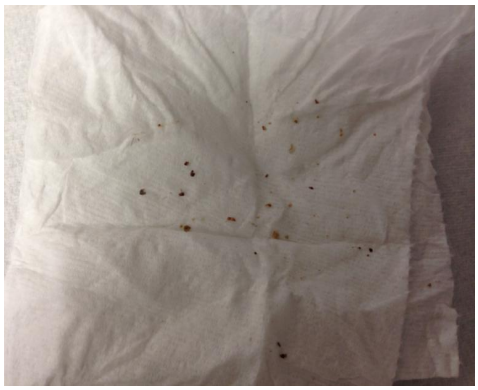

Photo 1. photograph of debris brought in by patient 2 (the matchbox sign). Pathology analysis revealed only debris

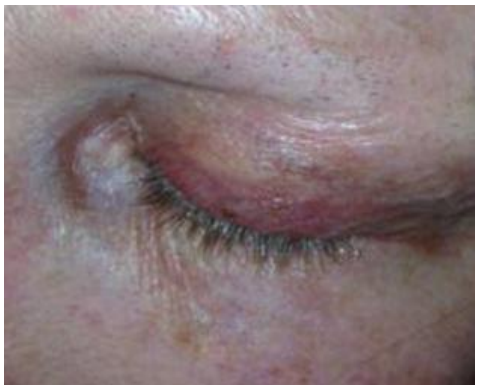

Photo 2. Photograph of shaved eyebrows patient 1

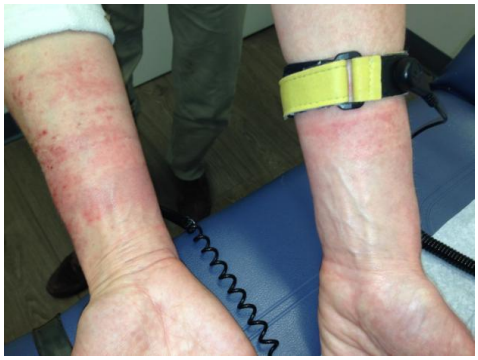

Photo 3. photograph of contact dermatitis from machine hookup to wrists and arms of patient 1

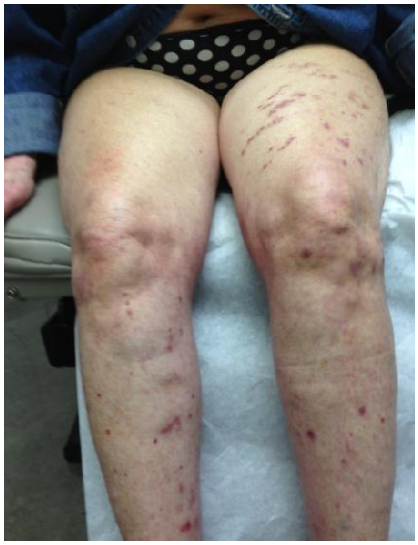

Photo 4. photograph of the legs of patient 2 after attempting to remove "strings" and "statues" out of her skin with a tweezer

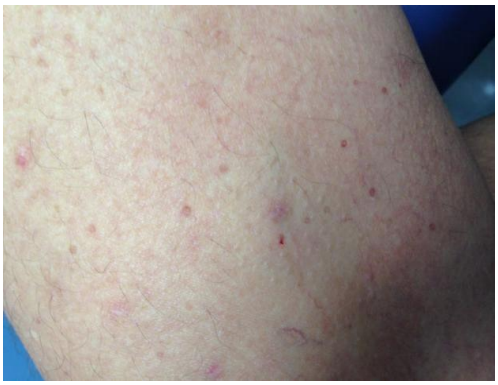

Photo 5. Photograph of excoriated skin on leg patient 4

7. CONCLUSION

This case series illustrates the wide disparity in patient presentation in Morgellans Disease and delusions of parasitosis. As seen in this case series, these diseases prove to show overlap in symptoms and response to treatment. Each treatment plan must be tailored to the patients' individual symptoms.

CONSENT

It is not applicable.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Fellner MJ. New findings in delusions of parasitosis. Skinmed. 2012;10(2):72-4.
2. Robles DT, Romm S, Combs H, Olsen J, Kirby P. Delusional disorders in dermatology: A brief review. Dermatology Online Journal. 2009;14(6):2.
3. Lepping P, Freudenmann RW. Delusional parasitosis: A new pathway for diagnosis and treatment. Clinical and Experimental Dermatology. 2007;33:113-117.
4. Scheinfeld NS, Delusions of Parasitosis Treatment and Management; 2014. Avaliable:http://emedicine.medscape.com/article/1121818
5. Koblenzer CS. Pimozide at least as safe and perhaps more effective than olanzapine for treatment of Morgellons disease. Arch Dermatol. 2006;142(10): 1364.
6. Elmer KB, George RM, Peterson K. Therapeutic update: Use of risperidone for the treatment of monosymptomatic hypochondriacal psychosis. J Am Acad Dermatol. 2000;43(4):683-6.

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