

A terrible itch

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A 74-year-old Caucasian woman visited an outpatient clinic at a homeless shelter. Her chief concern was itching all over her body. Her chart revealed a history of chronic scabies and mental illness. She had been seen in the clinic on 4 separate occasions over a 2-year period for scabies. She claimed on this visit that she could not get rid of the scabies because people kept taking away her medication. She also stated she could see the

creatures feed on her and move in and out of her skin.

The physical exam revealed that she was unwashed and disheveled. She had multiple excoriations on her extremities, hands, abdomen, back, and the nape of her neck (**Figure 1**).

■ WHAT ARE THE MOST LIKELY DIAGNOSES?

FIGURE



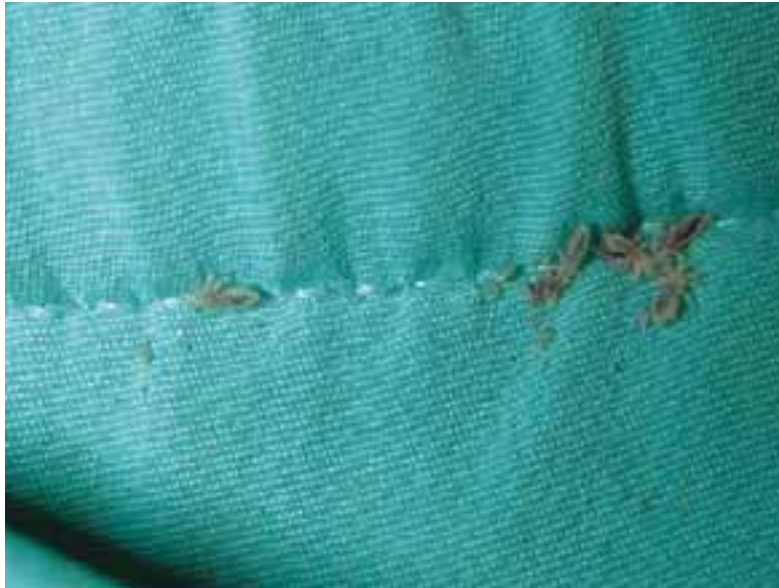
Excoriations on the abdomen.

■ SUBMITTING IMAGES TO PHOTO ROUNDS

Do you have images (slides, prints, digitized photos) of compelling clinical cases of interest to family physicians? We would like to publish them, along with a brief description of the clinical presentation and a diagnostic question for readers. The case should include information on the differential diagnosis and treatment, the latter applying an evidence-based approach supported by current references. Submit electronic files to richard.usatine@med.fsu.edu, or send high-quality slides and prints to:

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FIGURE 2



Adult body lice and nymphs on clothing seams.

■ DIAGNOSIS

The woman's appearance and mental status are consistent with schizophrenia; however, a diagnosis of scabies is not possible if she is really *seeing* the "bugs" on her body, as opposed to just imagining them. The scabies mite can only be seen with the aid of a microscope.

We looked for the bugs to confirm her story. While this could have been a case of delusions of parasitosis, on close inspection small "bugs" were indeed visible on her abdomen and along the seams of her pants. Multiple nits appeared attached to the hairs of her head, and a "bug" is noted to be feeding on the nape of her neck. This homeless woman has a massive infestation of body and head lice (**Figure 2**).

In the past she may have had a scabies infestation, but there was no documentation in the chart of any skin scrapings looked at under the microscope for diagnosis. It is more likely that she has been chronically infested with lice. Due to her mental illness, this patient may have been misdiagnosed with scabies based on the assumption that her claim to see the bugs was a hallucination. A close exam may not have been per-

formed due to her mental illness and poor hygiene, along with the health care providers' fears of catching scabies. Repeated documentation of scabies may have discouraged further investigation into another cause.

■ PEDICULOSIS

Lice are bloodsucking obligate parasites. There are hundreds of millions of cases of pediculosis worldwide affecting men, women, and children from all socioeconomic classes.

Three types of lice infest humans: the head louse (*Pediculus humanus capitis*), the body louse (*Pediculus humanus corporis*), and the pubic louse (*Phthirus pubis*). Lice cling to hairs with their clawlike legs and pierce the skin, inject saliva, and then defecate while obtaining their blood meal. When exposed to lice, people clinically experience little irritation from the first bite, but after a short period they become sensitized. A hypersensitivity reaction—producing reddening of the skin, itching, and overall inflammation—subsequently develops.

Body lice are similar to head lice, except they are slightly larger. They are primarily seen in the

homeless and indigent populations, with transmission occurring with direct body contact or sharing of contaminated clothes or bedding.

The body louse, contrary to popular belief, does not live on the body. It lives in the seams of clothing, clinging to the fibers. It will feed, remaining on the clothes, and only in massive infestations are they typically seen moving about the body. The axillae, groin, and truncal areas are the most severely affected. Patients have severe itching and tend to excrete these regions. In chronically infested patients a postinflammatory hyperpigmentation can be observed.

■ TREATMENT

Persons infested with body lice need to discard or launder their clothing using hot water, and then bathe themselves. In cases of massive infestation—such as this case, in which head lice were also found—a pediculicide should be applied to the hair and entire body from head to toe. This can then be washed off in the shower (level of evidence [LOE]=1a, from Cochrane Review). This same Cochrane systematic review of the treatment of head lice found no evidence that any one pediculicide has greater effect than another (LOE=1a).¹

In this case, the patient did not want to get rid of her green pants because she was able to find the “bugs” easily in its seams, which she thought helped keep them under control. When we explained that the full treatment of this condition required her to be given new clothes, she finally accepted this course of action.

Arrangements were made for her to shower at the shelter and obtain new clothes, and she was given permethrin shampoo to apply over her entire body from head to toe. She was scheduled to follow up in 1 week but unfortunately never returned to the clinic.

REFERENCE

1. Dodd CS. Interventions for treating headlice (Cochrane Review). In: *The Cochrane Library*, Issue 2, 2002. Oxford.

THE JOURNAL OF FAMILY PRACTICE

Evidence-based medicine terms

THE JOURNAL OF FAMILY PRACTICE uses a simplified rating system derived from the Oxford Centre for Evidence-based Medicine. More detailed definitions may be found at its website: <http://minerva.minervation.com/cebm/>.

Level of Evidence characterizes the validity of a study while making no specific practice recommendation

- 1a Systematic review of randomized controlled trials
- 1b Individual randomized controlled trial with narrow confidence interval
- 1c All or none—all patients died before therapy was available, but now some survive; or, some patients died before therapy was available, but now all survive
- 2a Systematic review of cohort studies
- 2b Individual cohort study, or low-quality randomized controlled trial
- 2c “Outcomes” research
- 3a Systematic review of case-control studies
- 3b Individual case-control study
- 4 Case series, or poor quality cohort or case-control studies
- 5 Expert opinion

Strength of Recommendation translates a given level of evidence into a practice recommendation

- A Includes 1a–c levels of evidence
- B Includes levels 2a–c and 3a, b
- C Includes levels 4 and 5

Strength-of-recommendation ratings do not always reflect a direct one-to-one correspondence with levels of evidence, as depicted above, but may take into account such variables as intervention cost, ease of use, and impact of the disease in the population.