



## Excoriated Papules and Plaques

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Howard is a 58-year-old postal clerk who comes to the office with a two-month history of a pruritic eruption. He states there are insects crawling in his skin and biting him at nighttime. He is convinced his office work area is the source of infestation. In fact, he brought along “evidence” gathered in a paper envelope.

Howard lives alone, his wife passed away five years ago and his children live overseas. Medical history reveal hypertension.

### Examination

He appears well but slightly dishevelled. He has halitosis and poor dentition. There are widespread excoriated papules and plaques on his trunk and extremities. Some lesions are ulcerated with surface crusting. There is no involvement of the palms nor genitalia. The upper back is relatively spared.

Inspection of the envelope contents reveal wool fabric, lint and debris. No obvious insects are noted.

### What is your provisional diagnosis?

- a. Scabies infestation
- b. Bullous pemphigoid
- c. Impetigo
- d. Herpes zoster
- e. Delusional parasitosis

*Answer: Delusional parasitosis*



Figure 1. Widespread excoriated papules and plaques on extremities.

### Which treatment(s) would be appropriate?

- a. Antibiotic cream
- b. Steroid cream
- c. Non-sedating antihistamines
- d. Consider psychiatric evaluation
- e. All of the above

*Answer: All of the above*

Patients may have relief of pruritus with steroid creams and oral antihistamines. Often ulcerations have secondary bacterial infection. Supportive counselling is paramount in order to gain trust of the patient and possibly refer to psychiatry.

### *About Delusional parasitosis (DP)*

DP is a fascinating psychiatric disorder characterized by a fervent belief that the patient has an infestation with insects. It is also known as Ekbom's syndrome, named after the Swedish neurologist who published a treatise on this condition in 1937. Patients typically present with cutaneous manifestations such as pruritus and excoriated dermatitis. The patient describes a sensation of "insects biting and crawling under their skin," a term known as formication. The majority of patients will bring evidence to support their belief. The evidence consists of dead pieces of skin, clothing lint and other inert debris placed inside a container—the so-called matchbox sign. In this modern age, matchboxes are somewhat obsolete and the authors typically see patients bringing their collection in a paper envelope with a plastic window—what we term the "paper envelope sign."

DP is considered to be a monosymptomatic hypochondriacal psychosis. Patients do not have obvious cognitive impairment nor abnormal organic factors. They may still function quite well in society although they may be considered "eccentric" by their family, friends and colleagues.

DP occurs primarily in Caucasian middle-aged to elderly women, although this disorder can affect any race or gender. The exact prevalence is not known.

It is important to emphasize that DP is a diagnosis of exclusion. Often there is a delay in the

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diagnosis. Other diagnostic considerations include primary cutaneous disorders such as:

- dermatitis herpetiformis,
- atopic/allergic contact dermatitis, as well as
- scabies infestation.

Management consists of history taking with careful attention to severity and duration of symptoms. There may be extenuating psychosocial factors.

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Physical examination often reveals excoriations, eczematous papules and ulceration of the skin. There may be relative sparing of difficult to reach areas (e.g., scapular regions), as well as lack of involvement of locations typically associated with scabies infestations (e.g., web spaces of the hands and genitalia).

Although an empiric trial of treatment with permethrin cream may be indicated in select cases, one should be cognizant of the potential painful discomfort and irritation of permethrin cream on ulcerated skin. Therefore, initiation of this medication should be instituted with only the greatest of confidence in the diagnosis of scabies infestation. Systemic conditions which may cause generalized pruritus and have to be excluded include:

- thyroid disease,
- lymphoma,
- diabetes mellitus,
- hepatitis,

- renal failure,
- lupus erythematosus,
- illicit drug addiction/abuse and
- dermatitis herpetiformis.

Finally, other psychiatric illnesses such as schizophrenia and major depression should be considered although these conditions are associated with greater morbidity and more significant impairment.

Laboratory investigations such as blood test, urinalysis and x-ray studies are primarily used to rule out underlying conditions based on history and physical exam. A skin biopsy may be indicated if one is concerned about dermatitis herpetiformis. It may be helpful to send the contents of the envelope in a dry container to microbiology lab for microscopy.

*Physical examination often reveals excoriations, eczematous papules and ulceration of the skin.*

The treatment of choice is risperidone or olanzapine since DP is a psychosis. In the past, pimozone was an effective agent. Patients are convinced of their delusion and will characteristically reject any challenge to their belief. Therefore, supportive treatment is required in order to gain their trust. However, it is also imperative that the physician does not reinforce the patient's delusion by using techniques such as saying "this cream medication will kill all your parasites" in order to obtain compliance with therapy. Patients may subsequently cite a prior healthcare worker's advice as

confirmatory evidence of their delusion thus increasing resistance to effective therapy. Some patients will outright reject referral to a psychiatrist. It is appropriate to send the patient to a dermatologist for a second opinion and to rule out primary cutaneous disorders such as dermatitis herpetiformis. However, the majority of dermatologists do not feel comfortable with the use of psychotropic agents in their practice<sup>1</sup> and will often request psychiatric evaluation. **Dx**

#### Reference

1. Szepietowski JC, Salomon J, Hrehorów E, et al: Delusional Parasitosis in Dermatological Practice. *J Eur Acad Dermatol Venereol* 2007; 21(4):462-5.

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