Common papules with uncommon cause

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Citation

Abstract
In Central Europe, bites from the common bed bug, (Cimex lectularius) are nowadays rather uncommon. However, the incidence of skin disease secondary to infestation with a human bedbug has increased in United States and United Kingdom. We describe a patient suffering from pruritus and erythematous papules. The etiology of his cutaneous lesions was discovered to be a bedbug infestation in the home, when the patient noted small brownish animals in his bed and decided to bring them to the local university to resolve the case.

INTRODUCTION
Cimex lectularius causes recurrent, pruritic, erythematous papules on the exposed areas of the face, neck and extremities. Adult bedbugs are reddish brown, flattened, oval and wingless. Adults grow 4 to 5 mm and they are visible to naked eye. They require blood meals to survive and feed on humans. Adults are quite resistant and can survive up to year without a meal.

Cimex lectularius is well adapted to human environments. It is found throughout the world and has been known since ancient times. They are nocturnal parasites with highly developed mouth parts that can pierce skin. In daylight, bedbugs usually seek shelter and become inactive while they digest their blood meal. The bite is painless but becomes itchy. Bedbugs seem to be unable to transmit any known blood-borne pathogens to humans.

CLINICAL SYNOPSIS
A healthy single 34 year-old male of Scandinavian descent sought medical attention with a 4 months history of erythematous papules on his limbs, buttocks and chests. The lesions began on the lower extremities and spread to his upper extremities. In lower extremities, the bites were groups of erythematous papules, whereas in the upper extremities the bites were mostly oedematous papules approximately 6 cm in length (Figure 1).

The patient had been treated with several short courses of potent steroid emollients, antihistamines and oral steroids without success and the patient continued to develop new lesions. Finally, the patient discovered several small insects in his bed and decided to bring them to for entomologic identification to the local university. The odd creatures were found to be Cimex lectularius, the commonly known bedbug (Figure 2). After appropriate eradication of the infestation by an exterminator, the skin lesions started to heal, and no new lesions were observed.
Figure 2
Figure 2. The bite of the bedbug has certain features, although clinical outcome can vary. Large reddened and itchy wheals normally fade within few days.

DISCUSSION
“Sleep tight, don’t let the bedbugs bite.” This old saying may be becoming newly relevant. It has been suggested that increased world travelling and insecticide resistance are the main reasons why bedbugs are biting back in developed countries around the world. 

Local sting reactions to insects or parasites are common and frequent cause for consultation of a dermatologist. Bedbug reactions are similar to any other arthropod bite reaction, with a superficial and deep mixed perivascular infiltrate. Edema of the papillary dermis with extravasated erythrocytes may be seen. Insect bite reactions tend to be non-specific as a rule, and bedbug bites are often inflicted on sleeping, unknowing victims, making the diagnosis difficult at times. A detailed history of the home environment, work conditions and travelling may be useful. Reactions can range from localized urticaria to bullous reactions to anaphylaxis in rare cases.

While bedbugs have been known to harbour pathogens in their bodies, including hepatitis B, they have not been linked to the transmission of any disease and are not regarded as a medical threat. Some individuals, however, can get skin infections and allergic reactions. With the use of DDT in the 1940s and 50s the bedbugs eventually disappeared from most parts of Europe. Bedbugs are present worldwide, but are particular challenge in poor subtropical and tropical areas of the world. In reports from a rural region of Gambia, the prevalence of bedbugs in children’s beds was 37.5 %.

Minimal symptomatic treatment and good hygiene to prevent itching and secondary infections are usually sufficient in most cases. Topical steroid creams with or without systemic antihistamines are good treatments. Sometimes, topical antiseptics and antibiotics as well as systemic antibiotics may be needed in the case of secondary infection.

References
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