

## *Argas reflexus* (the Pigeon Tick) – A Household Pest

Sir,

The family of ticks includes two members: the *Argasidae* (the soft ticks) and the *Ixodidae* (the hard ticks) (1). All ticks can bite humans and transmit different germs (2). Cases of anaphylaxis due to a sting by *Argas reflexus* (the pigeon tick) have been reported (3, 4). To our knowledge, however, *A. reflexus* is not a vector of *Borrelia burgdorferi*.

In the case presented here, we diagnosed stings by *A. reflexus* based on the history of the sting, the presence of pigeons in the attic and the ticks which had been found by the patient (Fig. 2). It is concluded that *A. reflexus* is a household pest.

### CASE REPORT

A 45-year-old Caucasian man living in Munich, Germany, developed overnight a painful, ca. 8×8 cm large infiltrated erythematous extremely itching lesion on the left buttock. At the centre of the lesion a sting was visible (Fig. 1). Some stings had been followed by a systemic reaction with fever during the last years. All serological examinations, including antibody measurement against *B. burgdorferi*, were normal.



Fig. 1. The left buttock of the patient with the sting.

The man reported that in the last years a lot of pigeons had had nests in the attic.

### DISCUSSION

The Argasidae consist of four species: *A. reflexus*, *A. persicus*, *A. brumpti* and *A. vesperilionis*. The last two species occur in Africa, whereas *A. reflexus* and *A. persicus* were found elsewhere. Members of *Argas* are characterized by their flattened bodies, their thin lateral margins and their leathery integument (Fig. 2). *A. reflexus* is found as an ectoparasite on snakes, lizards, turtles, many birds and some mammals. It hides in the nests or near the roosts of their hosts during the day. The females lay their reddish brown eggs in clumps of 25 to 100. The hatched larvae seek a host. They usually remain attached, feeding for a few days before dropping off to molt to the first-stage nymph. In 10 to 12 days, the second molt occurs, and the second nymphal instar is attained. There are three to four such molts, each one sandwiched between feedings. Finally, the adult form is attained. At night the nymphs and adults are extremely active, climbing onto their hosts and engorging themselves with blood. Frequently they attack humans, produ-



Fig. 2. The ticks found by the patient.

cing painful wounds that are subject to secondary infection (2). The adult males are approximately 5 mm long and 4.5 mm wide, and the females are 8.5 mm long and 5.5 mm wide (Fig. 2). It is possible that *A. reflexus* can survive for several years without biting humans or animals (4).

The *Ixodidae* are the vector of *B. burgdorferi*, but up to now all reports have shown that the family of *Argasidae* cannot transmit this type of *Borrelia* (5). Fabbi et al. found no serological evidence that *B. burgdorferi* can infect pigeons (6). However, *A. persicus* and *A. reflexus* are the vector of different other germs, for example *B. gallinarum*, the causative agent of avian spirochaetosis. The symptoms of this disease are diarrhoea, loss of appetite, convulsions and eventually death (1).

Recently, Dal Monte & Pajello (3) and Laubstein et al. (4) reported cases of anaphylaxis due to a sting by *A. reflexus*.

Since there is no good way of exterminating *A. reflexus* in houses without doing harm to humans, it is concluded that *A. reflexus* represents a household pest.

#### REFERENCES

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Matthias Thewes, MD, Reinhard Engst, MD, Heidelore Hofmann, MD and Johannes Ring, MD, PhD  
Department of Dermatology and Allergy Biederstein, Technical University of Munich, Biedersteiner Straße 29, DE-80802 Munich, Germany.