Gaëtan Lebrun, Karim Chadda, Anne-Héline Reboux, Olivier Martinet, and Bernard-Alex Gaüzère
Author affiliation: Centre Hospitalier Felix Guyon, Saint-Denis, La Réunion, France
DOI: 10.3201/eid1503.071482

References

Address for correspondence: Gaëtan Lebrun, Hôpital Européen Georges Pompidou, 20 rue Leblanc, 75908 Paris CEDEX 15, France; email: gaetan.lebrun@egp.aphp.fr

Cockroaches (Ectobius vittiventris) in an Intensive Care Unit, Switzerland

To the Editor: Ectobius vittiventris (Costa) is a field-dwelling cockroach and 1 of 4,000 cockroach species worldwide (1). We describe a cockroach infestation of an intensive care unit (ICU). Successful management required knowledge of the ecology of cockroaches and highlighted the need for species-level identification to tailor control strategies.

The University of Geneva Hospitals are a 2,200-bed tertiary healthcare center. The 18-bed medical ICU is located on the ground floor next to an outdoor recreational area and admits ≈1,400 patients/year. Smoking inside hospital buildings by patients and healthcare workers (HCWs) is strictly prohibited. On August 25, 2006, ≈30 cockroaches were observed in the ICU hiding inside oxygen masks, moving around on the light panels below the ceilings, or dropping onto intubated patients during the night.

An outbreak investigation was initiated. All work areas, including sinks and material stock areas, were thoroughly searched for cockroaches. External pest control experts identified only 1 species, E. vittiventris, which had presumably entered the ICU through windows facing the outdoor recreational area. The investigation showed that despite verbal recommendations and being repeatedly forbidden to do so, HCWs had opened the windows secretly with screwdrivers so that they could smoke during night shifts. The infestation was halted within 3 days after information regarding the infestation was provided to HCWs and all windows were bolted shut. In contrast to measures required to deal with a reported infestation in a neonatal ICU (2), no other measures such as use of insecticides, review of the air circulation system, or changes in architectural structures were necessary to stop the infestation reported here.

Cockroaches can cause 2 potentially serious health problems. First, they may provoke allergic reactions (3). Second, they have been suggested as possible vectors of multidrug-resistant pathogens. In particular, cockroaches that live and breed in hospitals have higher bacterial loads than cockroaches in the community (4–6). Up to 98% of these “nosocomial” cockroaches may carry medically important microorganisms on their external surfaces or in their alimentary tracts (4–9) and may disseminate these microorganisms by fecal–oral transmission.

Cockroaches are capable of harboring Escherichia coli (6,7), Enterobacter spp. (6,8,9), Klebsiella spp. (6,7,9), Pseudomonas aeruginosa (6,9), Acinetobacter baumannii (2), other nonfermentative bacteria (7,9), Serratia marcescens (7,9), Shigella spp. (6), Staphylococcus aureus (6,7), group A streptococci (6,7,9), Enterococcus spp. (6,7), Bacillus spp. (7), various fungi (6–8), and parasites and their cysts (6). An outbreak of extended-spectrum β-lactamase–producing Klebsiella pneumoniae in a neonatal unit was attributed to cockroaches (2). Pulsed-field gel electrophoresis did not distinguish organisms from the insects to those colonizing infants or causing clinical disease (2). Unlike other investigators, we did not cultivate the cockroaches (6,9).

E. vittiventris cockroaches are easily confused with Blattella germanica (Linnaeus) (the German or croton cockroach), which is probably the most important cockroach pest worldwide (1,9). In contrast to B. germanica (6,9) and other species (online Technical Appendix, available from www.cdc.gov/EID/content/15/3/496-1Parts of this research have been presented as a poster at the Annual Meeting of the Swiss Society for Infectious Diseases, Zurich, Switzerland, June 14, 2007.)
**Acknowledgments**

We thank Rosemary Sudan for editorial assistance, the ICU team of the University of Geneva Hospitals for collaboration, and Manadou Diallo for expert advice.

Ilker Üçkay, Hugo Sax, Sandrine Longet-Di Pietro, Hannes Baur, Marie-France Boulc'h, Jean-Claude Chevrolet, and Didier Pittet

Author affiliations: University of Geneva Hospitals and Faculty of Medicine, Geneva, Switzerland (Il. Üçkay, H. Sax, S. Longet-Di Pietro, M.-F. Boulc’h, C. Akakpo, J.-C. Chevrolet, D. Pittet); and Natural History Museum, Bern, Switzerland (H. Baur)

DOI: 10.3201/eid1503.071484

**References**


Address for correspondence: Didier Pittet, Infection Control Program, University of Geneva Hospitals and Faculty of Medicine, 24 Rue Micheli-du-Crest, 1211 Geneva 14, Switzerland; email: didier.pittet@hcuge.ch

---

**Cutaneous Anthrax, West Bengal, India, 2007**

To the Editor: In most of India, anthrax is not common, probably because a large proportion of the population is Hindu and does not eat beef. However, sporadic cases and outbreaks have been reported (1–6).

On June 8, 2007, a healthcare facility reported 12 cases of cutaneous anthrax in the Muslim village of Sarkarpara (population 361). On August 4, 2007, another facility 50 km away reported 8 cases from the Muslim village of Chambirpara (population 835). These 2 outbreaks, both in Murshidabad district, West Bengal, were associated with the slaughtering of 4 cows. We investigated each outbreak to confirm diagnosis, estimate magnitude (incidence and severity), and identify risk factors. We conducted house-to-house searches to identify case-patients and collected smears from skin lesions.

From Sarkarpara, we identified 45 cases of cutaneous anthrax and 2