

dling guidelines. A facility inspection and review of the caterer's procedures identified improper holding temperatures for potentially hazardous foods as the likely cause of the outbreak.

In this incident, prompt action by the police department, which employed an agency-wide radio communications system to warn officers not to eat lunches obtained for later consumption, reduced the number of persons who would have become ill from staphylococcal foodborne infection. In spite of this effort, the outbreak still had a considerable impact on the staff of the police department. The attack rate for those exposed was high, and three quarters of those who became ill missed ≥ 1 days of work. If an agent causing greater severity of illness, e.g., botulinum toxin, had been introduced into the bento lunches instead of *S. aureus*, the ensuing outbreak might have strongly compromised the department's ability to ensure public safety.

Despite modifications in food security industry regulations because of the Bioterrorism Act of 2002, intentional contamination of food items on a smaller scale remains a potential danger that needs to be addressed. As the incident we described demonstrates, under certain circumstances, terrorists may be able to substantially impair first response agencies, including police departments, through a limited but targeted foodborne attack. By incapacitating first responders, terrorists might maximize the impact of a larger, coordinated event. Just as maintaining the physical security of the Strategic National Stockpile is a priority in preventing a secondary attack, reasonable steps must be taken to ensure that our emergency workforce is protected from a targeted foodborne assault.

As a result of this outbreak, we have recommended that whenever entire units, departments, or shifts of first responders in our jurisdiction are involved in shared dining activities,

efforts should be made to obtain food items from more than 1 caterer for each meal. If departmentwide events necessitate using a single caterer, efforts should be taken to identify and mitigate the threat of intentional food tampering and there should be rigorous adherence to standard safe food-handling procedures to minimize the potential for naturally occurring outbreaks (7). Our recommendations here are similar to those employed by airlines to protect pilots and copilots on long flights by serving separate meals prepared in different kitchens (11).

Our intention is to share with other preparedness agencies our observation that first response assets might be compromised by something as seemingly innocuous as a holiday party. Appropriate planning may reduce the risk of intentional food contamination that targets security forces or first responders, either as an isolated strike or as part of a larger, coordinated terrorist attack.

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Rickettsiae in Ixodid Ticks, Sicily

To the Editor: Members of the spotted fever group rickettsiae are intracellular bacteria usually associated with ixodid ticks, which are transferred to vertebrates by salivary secretions and within ticks transtadially and transovarially. Several tickborne rickettsiae cause human or animal diseases and, in the last 10 years, the increased use of molecular-based

identification methods has resulted in new spotted fever group rickettsiae being characterized in ixodid ticks throughout Europe (1). Until recently, no rickettsiae, other than *Rickettsia conorii*, were reported in Italy. Since 2002, *R. helvetica* and Israeli spotted fever *Rickettsia* (*R. conorii* complex) have been detected in *Ixodes ricinus* and *Rhipicephalus sanguineus*, respectively (2–4). In Italy, Mediterranean spotted fever is endemic. This disease appears to occur more commonly in some central and southern regions (5); in 2002, more than half (498 of 890) of the cases of Mediterranean spotted fever identified in Italy and reported to the Ministry of Health came from Sicily.

Because of the relatively high prevalence of rickettsial diseases in southern regions, we analyzed tick samples collected during 2001 and 2002 from herbivores (bovines, ovines, donkeys) from Sicilian farms in Corleone (Palermo Province) to determine the diversity of spotted fever group rickettsiae in various ixodid tick species. DNA from 238 tick samples from various genera (*Dermacentor*, *Rhipicephalus*, *Hyalomma*, *Haemaphysalis*, *Ixodes*) was extracted; in some cases, individual ticks of the same species collected from the same animal were pooled. Polymerase chain reaction screening and sequencing with primers for the gene encoding the cell surface antigen (*sca4*) (previously known as “gene D”) and the 17-kDa antigen gene were

performed as previously reported (6,7). A total of 7 positives were found, and the sequences obtained were compared to other bacterial sequences present in the GenBank database (Table). A 469-bp fragment with 100% identity to the *R. slovaca* *sca4* sequence (AF155054) was obtained from 2 *Dermacentor marginatus* and 1 *Haemaphysalis punctata*. A 403-bp fragment with 99.75% identity (1-bp difference) to the *sca4* sequence from *R. africae* (AF151724) was found from 1 *Hyalomma marginatum*, and a 423-bp fragment with 100% similarity to *R. conorii* *sca4* sequence (AE008626) was found from *Rhipicephalus turanicus*. Finally, a 489-bp fragment with 99.79% identity (1-bp difference) to *R. aeschlimannii* *sca4* sequence (AF163006) was obtained from 2 *H. marginatum* samples. The levels of identity between the 17-kDa antigen sequences (ranging in length from 351 to 419 bp) obtained during this study and those in GenBank were generally lower than those for *sca4* because the 17-kDa antigen gene has not been sequenced for most of the *Rickettsia* spp. identified here on the basis of *sca4* sequences. One exception was the fragment obtained from the *Rh. turanicus* sample, which had 100% identity with the *R. conorii* 17-kDa antigen sequence (AE008675). All *sca4* and 17-kDa antigen gene sequences described in this study have been deposited in the EMBL database (accession no. AJ781411-AJ781420).

Among the numerous rickettsia species recently described in Europe, *R. africae* and *R. slovaca* are known as human pathogens (8), and the first case of *R. aeschlimannii* infection in humans has recently been reported (9). African tick bite fever caused by *R. africae* is known as an imported disease in patients returning from sub-Saharan Africa or the West Indies (8), but our report raises the possibility that the rickettsial agent is actually present in European ticks from genera other than *Amblyomma*. *R. slovaca* has been shown to be responsible for a human disease known as tick-borne lymphadenopathy (10). Considering the problem of cross-reaction between different spotted fever group rickettsiae during serologic tests, our findings underscore the importance of using antigens from other spotted fever group rickettsiae, in addition to that of *R. conorii*, to obtain a more specific diagnosis of rickettsioses in Italy (10). Considering the large number of tick species present in Italy, and their infection with different spotted fever group rickettsiae, identifying the tick species responsible for a bite could be helpful for accurate diagnosis.

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Table. Identification of *Rickettsia* spp. in tick samples collected from herbivores, Corleone (Palermo Province), Italy, 2001–2002

No. of ticks infected/total no. of ticks examined (tick species)	Minimum-maximum infection rate (%)	<i>Rickettsia</i> spp. identified (% identity with <i>sca4</i> of spotted fever group rickettsiae)
<i>Dermacentor marginatus</i> (2/7)	28.5	<i>R. slovaca</i> (100)
<i>Haemaphysalis punctata</i> (1/15)	6.6	<i>R. slovaca</i> (100)
<i>Hyalomma marginatum</i> (2*/24)	8.3–20.8	<i>R. aeschlimannii</i> (99.79)
<i>Hyalomma marginatum</i> (1/24)	4.1	<i>R. africae</i> (99.75)
		<i>Rickettsia</i> sp. strain S (99.25)
		<i>R. honei</i> (99.0)
<i>Rhipicephalus turanicus</i> (1†/52)	1.9–7.6	<i>R. conorii</i> (100)

*Two pools of 2 and 3 ticks were positive.

†One pool of 4 ticks was positive.

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