

9. Weese JS, Dick H, Willey BM, McGeer A, Kreiswirth BN, Innis B, et al. Suspected transmission of methicillin-resistant *Staphylococcus aureus* between domestic pets and humans in veterinary clinics and in the household. *Vet Microbiol.* 2006;115:148–55.
10. van Duijkeren E, Wolfhagen MJHM, Box ATA, Heck MEOC, Wannet JB, Fluit AC. Human-to-dog transmission of methicillin-resistant *Staphylococcus aureus*. *Emerg Infect Dis.* 2004;10:2235–6.

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Community-associated Methicillin-resistant *Staphylococcus aureus*, Colombia

To the Editor: Methicillin-resistant *Staphylococcus aureus* (MRSA) is an established nosocomial pathogen worldwide but more recently has emerged as a highly virulent organism in the community, particularly in the United States (1–3). In Latin America, community-associated MRSA (CA-MRSA) has only been described in the southern area of the continent (Uruguay and Brazil) (4,5). No reports from the Andean region are available. We describe 2 cases of CA-MRSA causing soft-tissue infections (1 severe) in Colombia.

The first case was in a 19-year-old man with a history of trauma to the left side of his body 1 week before admission after a fall. On admission, he complained of 2 days of fever, malaise, erythema and induration in the left hemithorax extending to the left thigh, and purulent secretion from

an excoriation on the anterior aspect of the left thigh. He had no previous medical history. No previous hospitalizations or antimicrobial drug prescriptions were documented, nor did he report relatives with history of recent hospitalizations. Vital signs at admission were normal except for fever (39°C), and physical examination showed induration and erythema in the region of left hemithorax extending to the thigh, with an area of excoriation in the same thigh with purulent discharge. Laboratory evaluation showed a leukocyte count of $23.1 \times 10^9/L$ (86% neutrophils with 2% band forms) and elevated C-reactive protein levels.

The patient was hospitalized. Because necrotizing fascitis was suspected, intravenous ampicillin-sulbactam (12 g per day) was started, and surgical evaluation was requested. The patient underwent surgical debridement of the left thigh, left hemiabdomen, and hemithorax, which confirmed the diagnosis of necrotizing fascitis. Intravenous vancomycin (1 g every 12 h) was added to the regimen, and the patient was transferred to the intensive care unit. After several surgical debridements, the patient underwent placement of cutaneous-muscle grafts. He was discharged from the hospital without complications after completing 14 days of antimicrobial agents.

The second case involved a 53-year-old man with no history of previous hospitalizations who reported to the emergency department with a 3-day history of fever, pain, swelling, and warm sensation on the posterior aspect of the left thigh. A diagnosis of cellulitis was made, and cephalexin (500 mg every 6 h) and gentamicin (160 mg intramuscularly every 24 h) were administered for 7 days without improvement. He returned to the hospital with worsening symptoms, an area of induration of 4×4 cm in the thigh, and purulent discharge. Drainage of the lesion was per-

formed, and oral trimethoprim and sulfamethoxazole (160 and 800 mg, respectively, every 12 h) was started. His clinical signs and symptoms completely resolved after 7 days of therapy.

Tissue culture from secretions from both patients showed gram-positive cocci in clusters on the Gram stain, and subsequent cultures yielded MRSA. Species identification and presence of the *mecA* gene were confirmed by PCR, as described previously (6). MICs were determined by using the agar diffusion test, according to Clinical and Laboratory Standards Institute recommendations (7). Both organisms were susceptible to vancomycin, teicoplanin, chloramphenicol, linezolid, ciprofloxacin, gentamicin, and rifampin. The isolate from the second patient was resistant to erythromycin and susceptible to clindamycin, exhibited the M phenotype on the double-disk diffusion assay (D test), and harbored the *msrA* gene, encoding an efflux pump (8). In contrast, the first isolate was susceptible to both erythromycin and clindamycin and resistant to tetracycline (MIC >64 µg/mL). Because infections caused by CA-MRSA isolated elsewhere are associated with the presence of the *lukF* gene encoding the Panton-Valentine leukocidin toxin and the staphylococcal chromosome cassette *mec* (SCC*mec*) type IV, the presence of both was evaluated by PCR, as described previously (9). Both isolates were positive for *lukF* and harbored the SCC*mec* type IV.

The molecular epidemiology of healthcare-related MRSA in Colombia has changed during the past 3 years (10), but no reports of CA-MRSA had emerged. We believe these to be the first reports of CA-MRSA in Colombia with similar characteristics to those reported elsewhere. No risk factors associated with healthcare-associated MRSA were found in either of these patients, and the patients were not epidemiologically

related. The first case involved a severe soft-tissue infection associated with CA-MRSA. Clinicians should be aware of the circulation of CA-MRSA in Colombia.

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References

- Vandenesch F, Naimi T, Enright MC, Lina G, Nimmo GR, Herffernan H, et al. Community-acquired methicillin-resistant *Staphylococcus aureus* carrying Panton-Valentin leucocidin genes: worldwide emergence. *Emerg Infect Dis*. 2003;9:978–84.
- Maltezou HC, Giamarellou H. Community-acquired methicillin-resistant *Staphylococcus aureus* infections. *Int J Antimicrob Agents*. 2006;27:87–96.
- Zetola N, Francis JS, Nuermberger EL, Bishai WR. Community-acquired methicillin-resistant *Staphylococcus aureus*: an emerging threat. *Lancet Infect Dis*. 2005;5:275–86.
- Ma XX, Galiana A, Pedreira W, Mowszowicz M, Christensen I, Machiavello S, et al. Community-acquired methicillin-resistant *Staphylococcus aureus*, Uruguay. *Emerg Infect Dis*. 2005;11:973–6.
- Ribeiro A, Dias C, Silva-Carvalho MC, Berquo L, Ferreira FA, Santos RN, et al. First report of infection with community-acquired methicillin-resistant *Staphylococcus aureus* in South America. *J Clin Microbiol*. 2005;43:1985–8.
- Martineau F, Francois J, Picarda LG, Paul H, Roya MO, Michel G; ESPRIT Trial. Multiplex PCR assays for the detection of clinically relevant antibiotic resistance genes in staphylococci isolated from patients infected after cardiac surgery. *J Antimicrob Chemother*. 2000;46:527–34.
- Clinical and Laboratory Standards Institute. Performance standards for antimicrobial susceptibility testing. Document M100-S15. Wayne (PA): The Institute; 2005.
- Leclercq R. Mechanisms of resistance to macrolides and lincosamides: nature of the resistance elements and their clinical implications. *Clin Infect Dis*. 2002;34:482–92.
- Oliveira DC, de Lencastre H. Multiplex PCR strategy for rapid identification of structural types and variants of the mec element in methicillin-resistant *Staphylococcus aureus*. *Antimicrob Agents Chemother*. 2002;46:2155–61.
- Cruz C, Moreno J, Renzoni A, Hidalgo M, Reyes J, Schienzel J, et al. Tracking methicillin-resistant *Staphylococcus aureus* clones in Colombian hospitals over 7 years (1996–2003): emergence of a new dominant clone. *Int J Antimicrob Agents*. 2005;26:457–62.

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Live Nativity and Brucellosis, Sicily

To the Editor: Worldwide, brucellosis remains a major zoonosis and an important cause of travel-associated illness (1). Brucellosis is transmitted to humans through the consumption of infected, unpasteurized, animal-milk products; direct contact with infected animal parts; or inhalation of infected aerosolized particles. We report an outbreak of brucellosis in a small village of the Ionic coast of Messina province (eastern Sicily).

In 2003, health authorities in the Messina province were notified of 29 cases of brucellosis; 18 of the patients were members of 9 different families. All patients had observed a Nativity pantomime that used live animals and was organized by the local population. Nativities in Sicily last ≈1 month, during which the sheep are milked, cheese and ricotta are produced, and these products are sold or offered fresh to tourists. All 29 patients had consumed dairy products: tuma cheese by 29 (100%) and tuma and ricotta by 16 (55%). No other risk factors for brucellosis were reported. Symptoms appeared after a

median of 45 days (range 30–70). Eight patients were children (3 male), and 21 were adults (10 male). The median age of the children was 10.5 years (range 6–13) and of the adults, 42 years (range 16–67). Hospitalization was required for 5 patients. For 2 adults, brucellosis was complicated by spondylitis.

The real extent of the outbreak was likely large because in Sicily ≈60% of cases may go unreported. Furthermore, we report only the cases that occurred in the villages of Messina province and that were reported to health authorities; but tourists from many other areas in Italy and some from outside Italy generally attend such events. Southern Italy has commonly been implicated as a venue for travel-associated brucellosis (2).

In Italy, the overall incidence of brucellosis has gradually declined in the past 30 years, especially in northern Italy, where the disease is now reported only sporadically. This trend, however, has led to an increase in the percentage of total cases in Italians reported from the southern provinces of Calabria, Campagna, Puglia, and Sicily; of the 520 cases reported in 2003, 488 (93.8%) were reported from 4 southern regions, compared with 63.7% in 1994. Sicily alone reported 57.6% of the 2003 cases and for the past decade has had an average annual incidence of >100 cases per million (1,3). The disease is almost always caused by *Brucella melitensis* (4). The southern localization of the disease in Italy is obviously related to the relative high prevalence of infections in sheep and goats (5). Ovine and caprine population density is higher in the southern regions of Italy than in the rest of the country (6).

The Italian brucellosis eradication plan consists of a test-and-slaughter practice. However, in Sicily a vaccination campaign with *B. melitensis* Rev.1 strain has been started. In 2003, ≈99% of the stock farms were tested, and ≈18% of them were infected (3).