Three cases of community-associated meticillin-resistant *Staphylococcus aureus* infection in China

The spread of meticillin-resistant *Staphylococcus aureus* (MRSA) in the community has challenged infection control recently since it can be acquired by patients without established risk factors for MRSA infection and can lead to a fatal outcome. Such community-associated MRSA (CA-MRSA) has been observed in many parts of the world (Hsu et al., 2005; Aires de Sousa et al., 2003; Ho et al., 2004). Three cases of CA-MRSA in mainland China and the genetic characteristics of the strains are described here in detail.

Case 1: In September 2006, a 36-year-old woman was admitted to the West China Hospital with a 4-day history of a carbuncle on the back of her foot. Pus from the lesion site was sent for culture immediately. MRSA was isolated; it was susceptible to ciprofloxacin, gentamicin, rifampicin, co-trimoxazole and vancomycin. The patient was treated with levofloxacin and metronidazole intravenously. Gentamicin was also used on the lesion area. The patient was previously healthy without any fundamental diseases or recent hospitalization.

Case 2: In February 2007, a 39-year-old Japanese man was brought to our hospital because of an abscess in the centre of his left armpit. About 1 week before admission, he got the infection in his armpit after swimming in Thailand but was not treated there. The bacterial culture of pus was performed in West China Hospital. Results showed a pure growth of MRSA, which was susceptible to gentamicin, rifampicin, clindamycin, co-trimoxazole, tetracycline and vancomycin. He was treated with vancomycin. This patient was strong and healthy without any history of hospitalization, surgery or residence in medical settings for the previous year.

Case 3: In April 2007, a 43-year-old man was admitted to our hospital because of a progressive pain and abscess in his finger.
also characterized them as CA-MRSA: susceptible to several non-β-lactams, carriage of SCCmec type IVa, positive for PVL genes (two of them), and shown to be the same as CA-MRSA clones prevalent in PVL genes (two of them), and shown to be carriage of SCCmec type IVa-ST59-t008 (J Clin Microbiol 41, 3806–3815). Conclusively, CA-MRSA (SCCmecIVa-ST359-t437 and SCCmec IVa-ST8-1008) has been present in mainland China. It should be paid much attention because of the probable fatal results and potential for outbreak. Screening patients with risk factors for CA-MRSA might be useful for controlling its domestic spread in communities. Patients who have a history of travelling abroad should be screened for MRSA carriage before admittance to hospitals.

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**Fig. 1.** Genetic types of the three CA-MRSA isolates. 1, s35301 (case 1); 2, s19165 (case 2); 3, s29635 (case 3); M, marker.