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皮膚科外来患者由来 MRSA 株に見られる新規 MRSA クローンの出現状況

(MRSA clones identified in outpatients' clinics of dermatology)

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### Abstract

Since Methicillin-resistant *S. aureus* strains appeared in 1961, they have been regarded to be important bacteria to cause hospital-associated infection. However, these strains appeared in the community. In 2000s, the emergence of community-associated MRSA strains has been a serious problem.

To know the characteristics of MRSA strains disseminating at the community, we have characterized 54 MRSA strains isolated from outpatients of clinics of dermatology at the four university hospitals of Juntendo University. Types of SCCmec elements, Multi-Locus Sequence Typing, exotoxin repertoire, toxic-shock syndrome toxins, Panton-Valentine Leukocidine, exfoliative toxin a and b, have been determined. As results, more than 15 MRSA clones were identified, and more than 70% belonged to the MRSA clones that are distinct from the representative hospital-associated MRSA clone, CC5-SCCmec IIa. Even 16 CC5-SCCmecIIa clones, 14 of 16 did not carry toxic-shock syndrome toxin gene. Among other clones other than CC5, CC8 clones were the most major, which are composed of 9 type IVI SCCmec strains ( 8 of 9 strains were *tst*-positive), a type IVa SCCmec strain (PVL-positive, ACME negative), a type I SCCmec strain, and a type IV SCCmec strain, of which entire SCCmec region has been determined in this study.

Our data suggested that many novel clones, some of which acquired virulence determinant, have emerged at the community.