DISTRIBUTION OF SCCMEC TYPES AND RESISTOTYPES OF LOCAL METHICILLIN RESISTANT *STAPHYLOCOCCUS AUREUS* STRAINS

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*Staphylococcus aureus* is an important opportunistic pathogen that causes pneumonia, bacteraemia in immunocompromised individuals and the prevalence of multiple resistant strains has been increasing in Malaysia and worldwide. One hundred eighty-six strains were analyzed by antimicrobial susceptibility test. Panton-Valentine leukocidin gene and SCCmec types were determined by PCR. The strains were isolated from year 2003 (n=51), year 2007 (n=20) and year 2008 (n=115). They were cultured from tracheal aspirates, urines, pus and swabs of patients from a local teaching hospital, Malaysia. The rates of resistance were erythromycin 92%, ciprofloxacin 90%, gentamicin 82%; tetracycline 48%, netilmicin 40%, fusidic acid 9%, rifampicin 5%, mupirocin and clindamycin 3%, linezolid and teicoplanin 1% by using disk diffusion methods. Among them, 141 strains were MDR (resistant to 3 or more classes of antimicrobial agents). The MDR rates had increased from 76% in year 2003 to 81% in year 2008. Two SCCmec types were observed; SCCmec III (n=155) and SCCmec IV (n=22). All SCCmec type IV strains isolated from year 2007 and five MDR SCCmec type IV strains isolated from year 2008 were multisensitive strains. Five strains were tested positive for PVL (two isolated from year 2007 and three isolated from year 2008). Linezolid and teicoplanin seem to be the most active agent against *S. aureus* infection ‘in-vitro’. In conclusion, 76% of the strains were multi-drug resistant. The Malaysian MDR MRSA strains were mostly SCCmec type III.