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Detection of Genes for Toxic Shock Syndrome Toxin 1 in *Staphylococcus aureus* by the Polymerase Chain Reaction

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Staphylococcus aureus produces extracellular toxins, such as exfoliative toxin, TSST-1 and virulence factors which are thought to contribute to the pathogenicity of the organism. Toxic shock syndrome is a specific type of infectious disease occurring widely in young women during the menstrual period, but it has also been reported in non-menstrual cases. Clinically toxic shock syndrome is closely associated with *S.aureus* carrying the *tst* genes encoding toxic shock syndrome toxin 1(TSST-1). *tsst-1* gene in *Staphylococcus aureus*(MRSA) 275 isolated from the clinical specimen obtained in the various hospital located in Seoul and Kyung Ki-Do were detected by PCR. 35 strains(12.7%) among the isolate 275 produced TSST-1 toxin.

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A Study on the Molecular Genotyping of TSST-1 Producing Strains of Methicillin Resistant *Staphylococcus aureus* by Using Arbitrarily Primed PCR.

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DNA finger printings of TSST-1 producing MRSA 26 isolated from the clinical specimen obtained in 6 hospitals, were analyzed by DNA finger printing method using AP-PCR with the primers(S₁, S₂ and E₂).

When S₁ primer used, 25 strains among TSST-1 producing MRSA 26 were identified a single cluster and showed to the similarity of 96.01%. 20 strains among the isolates 26 were classified a same group and showed to the similarity of 76.90%, when S₂ primer was used. Otherwise, when E₂ primer used, 21 strains out of 26 isolates were identified a single group and confirmed the similarity of 80.76%. From the obtained results, it was concluded that 84.22% of the isolates were closely related to the genetical course.