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Detection of *mecA* gene by PCR among coagulase negative *Staphylococci* from various clinical samples in a tertiary care hospital

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Introduction & Aim: Coagulase Negative Staphylococci (CoNS) are now emerging as important pathogen and its resistance to antibiotics are worrisome. Methicillin resistance among CoNS causes an important therapeutic threat associated with increased morbidity and mortality. This study was aimed to isolate the coagulase negative *Staphylococci* from various clinical specimens, evaluate its antibiotic susceptibility pattern and to detect the prevalence of *mecA* gene among coagulase negative *Staphylococci*.

Method: All the clinical samples were collected with aseptic precautions and processed as per standard protocol. All the coagulase negative Staphylococcal isolates were subjected for antibiotic susceptibility testing as per CLSI guidelines. Screening of methicillin resistance was done using cefoxitin disc (30 µg) as per CLSI recommended disc diffusion method. Genotypic analysis for methicillin resistance (*mecA* gene) was done.

Results: A total of 89 clinically significant non-repetitive coagulase negative *Staphylococcal* isolates were identified. *S. epidermidis* was most frequently isolated, among various species of CoNS. 15/89 (16.8%) were methicillin resistant but only 9 CoNS isolates showed *mecA* genes.

Conclusion: Coagulase negative *Staphylococci*, which were previously dismissed as contaminants are now emerging as important pathogen. There is necessity for continued surveillance to determine the extent of emerging resistance in CoNS to reduce inappropriate use of antibiotics and to allow policies to be established for adequate and rational use of antibiotics. This study insists the need of continuous monitoring the prevalence of methicillin resistance among CoNS in a given population and to frame the antibiotic policy because it can vary from region to region.

Biography

Senthamarai Thiyagarajan has completed her MD in Microbiology from Stanley Medical College. She is currently working as Professor in Meenakshi Medical College Hospital and Research Institute, India. Her areas of interest are Mycology, HIV, Antibiotic Resistance, Infection Control and Medical Education. She has received the Medical Excellence Award by Indian Solitarity Council at New Delhi and also has won many best paper awards to her credit. She has published more than 30 articles in reputed journals.

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