2-E-5

Antibiotic resistance in Staphylococcus aureus - Nepalese scenario

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Staphylococcus aureus, a commensal of skin and nasal mucosa, is a common pathogen of community and hospital infections. It is the most virulent *Staphylococcus* spp. causing localized skin infections to severe systemic infections. The emergence of resistance to antibiotics makes *S. aureus* a greater public health burden. Methicillin-resistant *S. aureus* (MRSA) accounts for more than 50% of the nosocomial infections and has been considered the most representative nosocomial pathogen over the past decades with significant morbidity and mortality. The reported prevalence of MRSA varies country to country or one study population to another within the range of 2 to 80%. Asymptomatic nasal carriers among health care workers are the major source of MRSA infection. Screening of health care workers (HCWs) for *S. aureus* and MRSA provides guideline for infection control strategies in the health care centers.

In my ongoing study at a tertiary care hospital of Nepal, out of 213 participating HCWs, nasal *S. aureus* carriers were 35, nasal and hand carriers were 4, i.e. total of 39 carriers (18.31%). Among these, 20 were MRSA carriers and all were only nasal carriers. Identification was done on the basis of inoculation on appropriate media, colony morphology, gram staining, biochemical reactions, and antimicrobial susceptibility testing according to Clinical and Laboratory Standards Institute (CLSI) guidelines. As a preventive measure of the nosocomial infection, topical mupirocin ointment has been suggested to all the carriers.

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