ANTIBIOTIC RESISTANCE IN NOSOCOMIAL PATHOGENS AT THE DENTAL HOSPITAL

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The emergence of resistance to antimicrobial agents is a global health problem, particularly in pathogens causing nosocomial (hospital acquired) infections; as it results in increased illness, deaths and health care costs.

The aim of this study was to determine the distribution and pattern of antibiotic resistance in nosocomial pathogens, (which cause nosocomial infections) at the dental ward and dental intensive care unit (ICU), dental teaching hospital, Peradeniya during 1999 to June 2003. Isolates were considered nosocomial if the culture was dated more than 2 days after admission. National Nosocomial Infections Surveillance (NNIS) definitions were used for the nosocomial infections.

Antibiotic susceptibility testing of the bacterial isolates were performed using the Stokes method. Three major types of bacteria causing the nosocomial infections were identified from surgical site, respiratory tract, urinary tract and blood stream infections; these were the coliforms, *Staphylococcus aureus* , and *Pseudomonas*. The highest infection rate was recorded from the coliforms (38%) followed by *Pseudomonas* (31%) and *S. aureus* (28%). The commonest pathogen of the surgical wound infections was *S. aureus* (48%), followed by the *Pseudomonas* (28%). 50% of the respiratory tract infections were associated with coliforms. Coliforms were the leading pathogen in urinary tract infections (78%). Blood stream infections are happen to be rare in the dental hospital.

A remarkable increase in the incidence of methicilin resistant *S. aureus* was reported in this study (65%). The third generation cephalosporin resistant coliforms and ciprofloxacin resistant *Pseudomonas* were low in the dental hospital. Surprisingly high rates of antibiotic resistance were recorded from the dental ICU. Bacteriologic surveillance addressing control measures or interventions remains important for the control of nosocomial infection in the dental hospital.