

ANTIMICROBIAL SUSCEPTIBILITY PATTERN OF NOSOCOMIAL URINARY TRACT INFECTIONS IN PATIENTS WITH SPINAL CORD INJURY IN A REHABILITATION SETTING

Hypothesis / aims of study:

Patients with spinal cord injury (SCI) are at risk for developing urinary tract infections (UTIs), which may involve multiple organisms, irrespective of the type of bladder management used. Because of prolonged hospital stays, most SCI patients experience nosocomial UTIs. To investigate the antimicrobial susceptibility of nosocomial UTIs in SCI patients in our rehabilitation center

Study design, materials and methods:

This study is a prospective study carried out by the Hospital Infection Control Committee from January 1st to December 31st of 2013. There were 230 SCI patients who were hospitalised during this period. Nosocomial infection was defined as an infection that was identified >72 hours after admission to the hospital, in cases in which there was no evidence of incubating infection on admission. All patients were screened when they were admitted to hospital to rule out incubating infections.

Results:

Fifty six nosocomial UTIs were detected. The detected pathogen was *E. coli* in 27 cases, *Pseudomonas* in 7, *Proteus* in 8, *Klebsiella* in 5, *Enterococcus* in 3, *Enterobacter* in 2, MRSA in 2, MSSA in 1 and *Citrobacter* in 1. Urinary drainage method was indwelling catheter (IC) in 12 patients and clean intermittent catheterisation (CIC) in 40 patients, whereas 4 of these patients did not have micturition problems. The most common microorganism detected was *E. coli* in SCI patients who use CIC as urinary drainage method (21 of 40 patients). The susceptible/resistant ratios of *E. coli* to Ampicillin, Ciprofloxacin, Trimethoprim/sulfamethoxazole and Nitrofurantoin were 18.5/81.5, 18.5/81.5, 25.9/74.1 and 66.7/29.6 respectively. The susceptible/resistant ratios of all pathogens to Ampicillin, Ciprofloxacin, Trimethoprim/sulfamethoxazole and Nitrofurantoin were 23.8/65.5, 37.9/58.6, 31.0/63.8 and 58.3/32.8 respectively.

Interpretation of results:

Nosocomial pathogens, especially *E. coli*, which cause UTIs in patients with SCI seem more resistant to antimicrobial agents than able-bodied patients.

Disclosures

Funding: no **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics Committee:** gulhane deneyssel arastirmalar merkezi **Helsinki:** Yes **Informed Consent:** No