ANTIBIOTIC SUSCEPTIBILITY OF *Klebsiella pneumoniae* ISOLATED FROM ANIMALS

Maxine Chin Ying Sii & [1]Siti Khairani Bejo

[1]*Department of Veterinary Pathology & Microbiology*
Faculty of Veterinary Medicine
Universiti Putra Malaysia, 43400 UPM Serdang, Selangor, Malaysia

Abstract

Klebsiella pneumonia is an important opportunistic pathogen and a frequent cause of nosocomial infections. The bacteria are responsible for a variety of diseases in humans and animals. This study was conducted to determine the antibiotic susceptibility of *K. pneumoniae* isolates to twelve antibiotics. Forty-two isolates which were isolated between 2007 and 2012 by the Bacteriology Laboratory, Faculty of Veterinary Medicine, Universiti Putra Malaysia, were used in this study. These bacterial isolates were obtained from various animals including horses, cats, dogs, goats, avian species, gaur, cattle, exotic animals and wildlife. The samples included swab (18), organs (18), faeces (3) and urine (3). Isolates were subcultured and confirmed as *K. pneumonia* using standard microbiology techniques. *Klebsiella pneumoniae* isolates were further subjected to antibiotic susceptibility testing using the Kirby-Bauer method. The susceptibilities of *K. pneumoniae* to amoxicillin-clavulanic acid, ampicillin, cephalothin, kenamycin, gentamicin, streptomycin, ciprofloxacin, tetracycline, doxycycline, trimethoprim-sulphamethoxazole, erythromycin and chloramphenicol were determined. *Klebsiella pneumonia* was found to be highly resistant to erythromycin (98%) and ampicillin (95%) while it is moderately resistant to cephalothin (55%). Although 60% (25 of 42) of *K. pneumoniae* isolates were multidrug-resistant, the majority of isolates were sensitive to amoxicillin-clavulanic acid, gentamicin and ciprofloxacin with the same sensitivity rates of 71%.

Keywords: *Klebsiella pneumoniae*, nosocomial infections, Kirby-Bauer method, multi drug-resistance