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PREVALENCE OF VANCOMYCIN-RESISTANT ENTEROCOCCI IN COMPANION-DOGS AND CATS IN CHIANG MAI PROVINCE

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Abstract Vancomycin-resistant enterococci (VRE) were found 19.5% in dogs (41 from 210 fecal samples) and 22.8% in cats (26 from 114 fecal samples) from Small-animal Hospital, Chiang Mai University, Thailand by using bile esculin azide agar contained vancomycin 6 µg/mL as screening test and agar dilution technique for determining minimal inhibition concentrations (MICs). Among the VRE strains, prevalence of *Enterococcus faecium* was 43.3% *E. faecalis* 22.4% *E. gallinarum* 17.9% *E. avium* 14.9% and *E. duran* 1.5%. Only 2 strains (3%) which were *E. faecium* revealed their MICs for vancomycin > 32 µg/mL and the rest of VRE strains (97%) were 8-16 µg/mL. None of VRE strains were resistant to teicoplanin. Antimicrobial-resistant patterns of other antibiotics tested for VRE were found resistance to ampicillin 56.7%, tetracycline 46.3%, erythromycin 20.9%, tylosin 16.4%, and chloramphenicol 6%. Since companion animals, especially dogs and cats, had never been treated or directly exposed with glycopeptides and/or tylosin. There might be preliminary conclusion that VRE was colonized in dogs and cats via food of animal origins (either commercial companion-feed or home-prepared food by their owners) or from environment. The results from this study had indicated that VRE-colonized in dogs and cats could relate to human and community. *Chiang Mai Veterinary Journal* 2005;3:5-14.

Keywords: Dog, Cat, Enterococcus, Vancomycin, Antimicrobial resistant, VRE