SUMMARY

Enterococcus, which are found in the digestive flora, are bacterium that can cause infections both in humans and dogs. They cause illnesses such as otitis media and urinary infections. They cause many other infections in human beings, including hospital bugs that are resistant to vancomicine and that lead to serious health problems. The aim of this study is to establish the kinds of enterococcus strains that were isolated from dogs which were in close contact with humans and their resistance to antibiotoics. It is expected that the results would reveal the significance of these bacterium for dogs and humans.

300 swabs were taken from the oral, nasal, and rectal flora of dogs that were admitted to pet animal clinics in İzmir between March 2013 and February 2014. A total of 51 types of enterococcus were identified using conventional and otomatic methods. 35 were identified to be *E.feacalis*, 13 as *E.faecium* and 3 *Enterococcus spp*.

Enterococcus faecalis was isolated from the rectal, oral and nasal flora at the following respective rates: 43%, 31% and 26%. These rates were as follows for *E.faecium*: 69%, 8% and 23%. 51 isolated strains were examined, using disc diffusion and otomatic methods to identify their sensitivity to erythromycin, tetracycline, chloramphenicol, ciprofloxacin, penicillin ve ampicillin and vankomycin.

Resistances to the following antibiotics were identified: 51% to erythromycin, 37% to tetracycline, 20% to chloramphenicol, 14% to ciprofloxacin, 14% to penicillin, and 14% to ampicillin. No resistance to vankomycin was identified. The respective resistance levels of *E. faecalis* are as follows: erythromycin 51%, tetracycline 37%, chloramphenicol 20% and ciprofloxacin 9%. No resistance to vankomycin, ampicillin and penicillin was identified. *Enterococcus faecium* showed the following resistances to erythromycin, ampicillin, penicillin, tetracycline, ciprofloxacin and chloramphenicol *:* %54, %54, %54, %31, %31 and %7. This study established that different types of enterococcus, specifically the strains were not resistant to vankomycin.

E.faecalis are carried in the oral and rectal flora of dogs. High levels of resistance to antibiotics that are used to treat different types of enterococcus infections were also identified. This finding is considered to be important for the treatment of enterococcus infections in dogs and for the risk of contamination for human beings who are in close contact with such dogs.

Keywords : *Antibiotic resistance, Enterococcus faecalis, Enterococcus faecium, Dog, oral, nasal, rectal*