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ANTIBIOTIC SUSCEPTIBILITY OF *ENTEROCOCCUS* STRAINS ISOLATED FROM TURKISH DRY FERMENTED SAUSAGE (SUCUK)

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The aim of this study was to detect *Enterococcus* strains in Turkish dry fermented sausage (sucuk) produced by different manufacturers without using starter culture and to analyse isolates for their biodiversity and antibiotic susceptibility. Presumptive *Enterococcus* strains were isolated by Kanamycin Aesculin Azide (KAA) agar. *Enterococcus* isolates were identified at species level by 16S rDNA sequence homology. From 20 sucuk samples we isolated 60 enterococci strains, which belong to the following species: 44 *E. faecium* strains (73.3%), 7 *E. faecalis* strains (11.7%), 5 *E. hirae* strains (8.3%), 2 *E. durans* strains (3.3%), 1 *E. mundtii* strain (1.7%) and 1 *E. thailandicus* strain (1.7%). The antibiotic susceptibility patterns of the *Enterococcus* strains were detected by the disc diffusion method on Muller-Hinton agar using 18 commercially distributed discs. The *Enterococcus* strains were found mostly resistant to rifampin (5 µg) followed by ciprofloxacin (5 µg), nitrofurantoin (300 µg) and erythromycin (15 µg). All of the strains were found sensitive to ampicillin (10 µg). Only two *E. faecium* strains (FYE4 and FYE60) were found sensitive to all of the antibiotics used in this study. Other *Enterococcus* strains were showed different levels of resistance to antibiotics. The *Enterococcus faecalis* strains were found higher resistant to antibiotics than other species. In total 61.7% of the strains exhibited multiple antibiotic resistance patterns. The results of this study indicated that Turkish dry fermented sausages are potential reservoirs of multi-drug resistant enterococci.

Keywords: *Enterococcus*, Turkish dry fermented sausage (sucuk), antibiotic susceptibility

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