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ISOLATION OF *ENTEROCOCCUS FAECIUM* STRAINS FROM SUCUK AND DETECTION OF THEIR SOME VIRULENCE FACTORS

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The aim of this study was to isolate *Enterococcus* strains from sucuk, Turkish traditional fermented meat product, produced without using starter culture and to detect of some virulence genes of these strains. A total of 24 presumptive *Enterococcus* strains were isolated by Kanamycin Aesculine Azide (KAA) agar medium and then *Enterococcus* isolates have been molecularly identified as *Enterococcus faecium* (*E. faecium*) by sequencing 16S rDNA. Presence of 9 virulence genes *gelE* (gelatinase) *efaA*$_{fm}$ (cell wall adhesin), *agg* (aggregation substance)*, ccf, cpd, cob, cad,* (sex pheromones) *esp*$_{fm}$ (cell wall associated protein) *ace* (collagen adhesin) were investigated in *E. faecium* strains and gelatinase activity of the strains was also determined by phenotypically on Todd-Hewitt agar containing 30 g gelatine per liter. Polymerase chain reaction (PCR) studies showed that four strains harboured *gelE* gene*,* ninety-nine strains harboured *efaA*$_{fm}$ gene, and twenty-two strains harboured *ccf* gene*.* None of the strains carried *ace* gene except only *E. faecium* OBS15. The *cob*, *cpd*, *agg*, *cad* and *esp*$_{fm}$ genes were not detected in any strains. Gelatinase activity of the strains were not determined including four strains (*E. faecium* OBS3, OBS13, OBS29 and OBS31) containing *gelE* gene. Results of the gelatinase production evaluated that *gelE* gene in these four strains were silent. Based on the data obtained this study *E. faecium* strains isolated from Turkish sucuk may be potential risk factors for consumers health.

Keywords: *Enterococcus faecium*, sucuk, virulence factors

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