

Antibiotic Resistance and Virulence Factors among Enterococci Isolated from Chourico, a Traditional Portuguese Dry Fermented Sausage

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Abstract: Enterococci are ubiquitous microorganisms, found as part of the normal intestinal microbiota of many animals. They can be present in food products, for example, the Portuguese dry fermented sausage chourico. Twenty enterococci were isolated from chourico in two processing units; after identification and typification by conventional-molecular methods, the isolates were screened for virulence factors and antibiotic resistance. Identification allocated all enterococci to the species *Enterococcus faecalis*, and PCR fingerprinting demonstrated that each isolate was specific to the processing unit and chourico from which it was recovered. Regarding the screening for virulence factors, 1 strain produced cytolysin and 4 were gelatinase positive, but none produced lipase. The *ace* gene was detected in 1 enterococci, *ebpABC* and *efaA(fs)* in 16 isolates each, *esp* in 3, *fsrB* in 5, *gelE* in 7, and *cylA* in 1. A multiresistant phenotype was observed in 8 isolates, 6 belonging to factory A. The antibiotic resistance gene *ere(B)* was detected in 9 enterococci, whereas the genes *tet(M)*, *aac(6')-Ie-aph(2'')*, and *vanA* were detected in 8 isolates each. As some of the *E. faecalis* chourico isolates present a multiresistant profile and harbor virulence and/or resistance genes, to assess further the safety of Portuguese dry sausages, a larger number of products and processing units must be analyzed.

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