Ana Teresa Moura, J Food Process Technol 2015, 6:9
http://dx.doi.org/10.4172/2157-7110.S1.027

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International Conference on

Food Safety and Regulatory Measures

August 17-19, 2015 Birmingham, UK

Anti-microbial susceptibility of *Staphylococcus* spp. in ready-to-eat *sashimi*

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Portuguese consumers increasingly appreciate Japanese traditional specialties with raw fish like *sashimi*. The adoption of good hygienic practices along with adequate temperatures until and during preparation is essential to maintain the optimal freshness of *sashimi*. *Staphylococcus* aureus and other staphylococci species being commensal of skin and mucosal surfaces of humans are indicators of direct contamination by food handlers who represent a key source dissemination of multi-resistant staphylococci to others and to foodstuff. The aim of this study was to investigate the anti-microbial susceptibility pattern of coagulase-positive and coagulase-negative staphylococci isolated from *sashimi* meals collected in Japanese restaurants from northern Portugal.One hundred and thirty six isolates of *Staphylococcus* spp. were recovered from *sashimi* samples. RAPD-PCR analysis revealed 65 isolates with distinct patterns. The antimicrobial susceptibility test showed high levels of resistance to β-lactams, macrolides and lincosamides. All cephalosporins tested as well as linezolid, rifampicin, quinupristin-dalfopristin and tetracycline showed very good activity against *Staphylococcus* spp. with susceptibility percentages ranging from 92.3% to 93.9%. All *Staphylococcus* isolates were sensitive to trimethoprim-sulfamethoxazole, ciprofloxacin and chloramphenicol. Multidrug-resistant staphylococci (25%) were found in sashimi samples. In other hand, 64.6% of CPS and 76.5% of CNS isolates were resistant to two or more antibiotic agents. Our results reveal a need for national and international surveillance of staphylococci presence in *sashimi* coupled with antimicrobial resistance investigations involving not only Japanese restaurants but also other steps from fishing to retail, emphasizing food handlers' crucial intervention in order to reduce the dissemination of multi-resistant microorganisms into the community.

Biography

Ana Teresa Moura has completed her Food Science Degree from University of Trás-os-Montes e Alto Douro, Portugal, and has completed her Master's studies in Food Safety from the same University in 2015.

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