

CHARACTERIZATION OF STAPHYLOCOCCI ISOLATED FROM THE DISTRIBUTION CHAIN OF MEAT IN ALGERIA

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ABSTRACT

Staphylococci are ubiquitous bacteria; diseases caused by these germs are highly polymorphic, ranging from benign skin lesions such as boils and paronychia to pathologies which are life-threatening such as septicemia, endocarditis, and pneumonia and nervous system infections.

Our work focuses on the characterization of staphylococci found in the distribution chain of meat, which may be pathogen especially via the digestive tract, for that we have made various biochemical tests for the phenotypic identification and PCR for molecular identification.

The phenotypic results show the presence of some species, among are opportunistic pathogens such as *S. epidermidis*, *S. haemolyticus*, *S. caprea*, *S. hominis* and *S. saprophyticus* with rates of 2 %, 2 %, 2.38 %, 2.38 % and 7.14 % respectively and species responsible for infections and serious foodborne illness such as *S. aureus* with a rate > 12,95 %. The antibiogram of *S. aureus* strains shows their sensitivity to most of antibiotics except penicillin at which all strains are resistant, whereas 40 % of strains are resistant to tetracycline and 20 % are resistant to erythromycin and clindamycin.

Molecular identification based on research “*Nuc*” gene confirms some phenotypic identification which indicate the prevalence of pathogenic strains, but these results need to be confirmed by other techniques such as sequencing, genomic, transcriptomic, and proteomic analysis..

KEYWORDS: *Staphylococcus*, Meat, Phenotypic, Molecular, Characterization