DETECTION OF ENTERIC BACTERIAL PATHOGENS, *LISTERIA MONOCYTOGENES* AND OPPORTUNIST MYCOBACTERIAL SPECIES IN MUSSEL (*Perna perna*) BY PCR AND RESTRICTION ENZYME ANALYSIS

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The bivalve molluscs represent an important vehicle of infectious agents and marine biotoxins. These animals have the ability to concentrate various pathogens and toxins during their filter feeding process. The aim of this study was to investigate the occurrence of pathogens such as *Escherichia coli*, *Listeria monocytogenes*, *Salmonella* spp., and potentially pathogenic mycobacterial species in mussel commercialized at a mussel farm in Niteroi-RJ, Brazil by PCR and restriction enzyme analysis (PRA). A total of 28 samples *in natura* (25 grams ± 0.2g each) were analyzed. DNA was extracted from 1.0 mL aliquots of specific enrichment culture to each specie investigated by DNeasy Blood and Tissue Kit (Quiagen). The PCR assay was based on *LamB* and *InvA* genes of *E.coli* and *Salmonella* spp., respectively. A multiplex PCR based on *iap* and *hly* genes was performed to simultaneous detection of *L. monocytogenes* and it’s virulence factor listeriolysin O. The identification of mycobacterial species was performed by the PRA method. The results showed successful amplification in six samples for *E.coli* (21.4%) and one for *L monocytogenes* with virulence factor (3.5%), with no amplification for *Salmonella* spp. One amplification was identified as *Mycobacterium peregrinum*. Our finding suggest the potential risk of ingesting mussels to the human heath due the presence of those pathogens. The termic treatment of this seafood before consumption is therefore indicated as a good measure to prevent infection by those microorganisms.