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Development of a PCR-based rapid method for the detection of *Listeria monocytogenes* in food samples after enrichment steps

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Listeria monocytogenes is a Gram positive, facultative and opportunistic pathogen causing food-borne infections in human worldwide. Although cause major problems in immunocompromised individuals such as pregnant women, neonate and elderly. The old conventional methods for the identification of *L. monocytogenes* in foods are laborious and require almost 3-5 days giving ready results. To overcome this problem we have demonstrated a fast, non-conventional, simple, sensitive and rapid Polymerase Chain Reaction (PCR)-based method by using the primers for *prfA* gene sequence for the detection of *Listeria* in food samples. Experiments were to observe the sensitivity of this primer in number of combinations. Optimization studies were conducted using milk samples spiked with different inoculum size and for different time intervals. It was observed that this method efficiently detect minimum contamination of *Listeria* as tested with spiked samples in around 14 hours. Comparable results were observed when this method was applied to detect *Listeria* in naturally contaminated samples along with conventional methods. The proposed method can be employed to detect *Listeria monocytogenes* in parallel to standard conventional methods.

Biography

Shumaila Ali has completed her MPhil in Microbiology from Jinna University for Women, Karachi, Pakistan under the supervision of Abdul Basit Khan at the Microbiology Department. She is also a Lecturer of Microbiology Department at Jinnah University for Women.

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