The Determination of Microorganisms Associated with the Safety of Local and Pre-Packed Kuli-kuli

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Abstract
This study investigates the microbial load of local and pre-package kuli kuli sold within the Ilaro metropolis. Bacteria and fungi were isolated and characterized using basic biochemical tests. Bacteria were in abundance in all the locations with Sabo local kuli-kuli being the highest at (43.75%) than that of prepackage kuli-kuli (22.86%) indicating potential hygiene issues in traditional production. Isolated staphylococcus aureus in kuli-kuli at 15% occurrence. *Escherichia coli*: Surprisingly, *E. coli* was more prevalent in local Kuli-Kuli (26.56%) than in pre-packaged Kuli-kuli (34.29%), contrary to expectations of better-quality control in the latter. *Escherichia coli* in kuli-kuli at 5% occurrence. *Bacillus sp* showed similar occurrences in both types of Kuli-Kuli, suggesting that these bacteria may originate from raw materials and are not affected by packaging. Fungal Isolates (Aspergillus, Penicillium, Mucor, Rhizopus): Fungal contaminants were more prevalent in pre-packaged Kuli-Kuli, with Aspergillus and Penicillium exhibiting similar occurrences in both sample types. This emphasizes the importance of proper storage conditions to prevent fungal growth. Overall, these results underscore the need for improved hygiene practices and quality control in Kuli-Kuli production, especially in traditional settings, to ensure consumer safety and product quality.

Keywords: Kulikuli, Isolation, Identification, Microorganism, Hygiene