



BACTERIAL ASPECT OF COOKED MEAT AND EDIBLE OFFAL AT STREET VENDORS LEVEL

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ABSTRACT

One hundred random samples of cooked head meat, liver, kofta and mixed offal (25 of each) were collected from street vendors level in Kalyobia, Giza and Cairo governorates. All collected samples were examined to determine their microbiological profiles. The obtained results indicated that the mean values of APC, Enterobacteriaceae and coliform counts in the examined samples of cooked meat products were $1.4 \times 10^7 \pm 0.5 \times 10^7$, $1.7 \times 10^4 \pm 0.43 \times 10^4$, $3.4 \times 10^5 \pm 0.17 \times 10^5$ CFU /g, for liver, $1.2 \times 10^7 \pm 0.4 \times 10^7$, $2.4 \times 10^4 \pm 0.52 \times 10^4$, $9.6 \times 10^5 \pm 0.37 \times 10^5$ CFU /g, for mixed offal, $1.5 \times 10^7 \pm 0.43 \times 10^7$, $1.5 \times 10^7 \pm 0.48 \times 10^7$, $2.6 \times 10^5 \pm 0.5 \times 10^5$ CFU /g for kofta, $5.4 \times 10^6 \pm 0.33 \times 10^6$, $2 \times 10^3 \pm 0.58 \times 10^3$, $1.4 \times 10^3 \pm 0.44 \times 10^3$ CFU /g, for head meat, respectively. The differences associated with the examined samples of cooked meat products were significant ($P < 0.05$) because of product type. Concerning Salmonella organisms, *S. enteritidis* was isolated from (8%, 12%, 4%) of liver, mixed offal and kofta respectively. In addition, *S. typhimurium* was isolated from 8% and 4% of the examined samples of liver and kofta, retained at low level of sanitation, respectively. While, all examined samples of cooked head meat products were free from *Salmonellae*. Finally, the significance of isolated bacteria in ready- to- eat meat products and possible sources of contamination as well as some recommendations to improve the quality of these products were discussed.

Key words: liver head meat, Kofta, Mixed offal, Bacterial aspect.

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1. INTRODUCTION

Street-vended foods are ready-to-eat foods prepared and sold by vendors on streets and similar public places. Street-vended food differs greatly between countries and cultures. They provide source of readily available, inexpensive and nutritional meals, while providing a source of income for the vendors [7]. In countries where street vended food is prevalent, there is commonly a lack of information on the incidence of foodborne diseases related to such foods. However, microbiological studies on street-vended foods in American, Asian and African countries have revealed high bacterial counts and high incidence of foodborne bacterial

pathogens implicating in outbreaks of foodborne diseases. Street food vending in Egypt, as in other developing countries, has increased markedly due to increased unemployment and limited work opportunities. The most popular traditional street-vended foods include meals of animal origin comprising cooked meat / liver /mixed offal and kofta. The microbiological quality of these foods depends on the hygienic quality of their ingredients. Due to the nature of their preparation, personnel hygiene is very important for food quality. Poor personnel hygiene during production probably leads to the contamination of these foods with pathogenic microorganisms, especially *Salmonellae* and coliform bacteria [8]. Using