

## **7. Summary**

The contamination of foods with mycotoxins is a commonly known problem. The most commonly observed mycotoxins include aflatoxins and ochratoxin A. Intense investigations have been conducted by studying the existence of the various mycotoxins to find out how they affect human food chains. Several mycotoxins reported to date are cosmopolitan in distribution and incur severe health-associated risks (including cancer and neurological disorders).

This study was conducted for detection of aflatoxins and ochratoxin in some meat product samples as a major contributors in public health hazards. Two hundred and fifty samples of different meat products (minced meat, basterma kofta, luncheon and beef burger) were randomly collected from different markets representing different localities ( Giza and Cairo Governorates) and examined for detection of AFs and OTA concentrations by using competitive direct enzyme- linked immunosorbent assay (CD-ELISA). The ability of some dairy strains of lactic acid bacteria and *Saccharomyces cerevisiae* to reduce the risk of aflatoxins was also investigated.

The highest aflatoxins 104 (83.2%) and ochratoxin 105 (84%) contaminations were found in Giza and Cairo governorate respectively. The highest concentrations of aflatoxins and ochratoxin residues ( $\mu\text{g}/\text{kg}$ ) were  $2.659 \pm 0.041$  isolated from kofta samples in Giza and  $2.306 \pm 0.129$  in basterma samples from Cairo, respectively.

Chasing by *Saccharomyces cerevisiae* 3% caused maximum withdrawal of aflatoxins and ochratoxin by (95%) and (69%) respectively at the end of incubation on the sixth day of cold storage incubation for experimentally

contaminated beef burger. However *Lactobacillus Acidophilus* 3% caused withdrawal ratio of aflatoxins and ochratoxin by (97%) and (60%) respectively. So, this preliminary study warrants the public against the potential risk of aflatoxins and ochratoxin contamination in meat products with counteract amelioration by the convenient use different probiotics. The public health significance of aflatoxins and ochratoxin as well as recommended hygienic measures to keep meat products safe was discussed.