

## **Incidence of Fungal Infections and Mycotoxicosis in Pork Meat and Pork By-Products in Egyptian Markets**

**Authors :** Ashraf Samir Hakim, Randa Mohamed Alarousy

**Abstract :** The consumption of food contaminated with molds (microscopic filamentous fungi) and their toxic metabolites results in the development of food-borne mycotoxicosis. The spores of molds are ubiquitously spread in the environment and can be detected everywhere. Ochratoxin A is a potentially carcinogenic fungal toxin found in a variety of food commodities, not only is considered the most abundant and hence the most commonly detected member but also is the most toxic one. Ochratoxin A is the most abundant and hence the most commonly detected member, but is also the most toxic of the three. A very limited research works concerning foods of porcine origin in Egypt were obtained in spite of presence a considerable swine population and consumers. In this study, the quality of various ready-to-eat local and imported pork meat and meat byproducts sold in Egyptian markets as well as edible organs as liver and kidney were assessed for the presence of various molds and their toxins as a raw material. Mycological analysis was conducted on (n=110) samples which included pig livers n=10 and kidneys n=10 from the Basateen slaughter house; local n=70 and 20 imported processed pork meat byproducts. The isolates were identified using traditional mycological and biochemical tests while, Ochratoxin A levels were quantitatively analyzed using the high performance liquid. Results of conventional mycological tests for detecting the presence of fungal growth (yeasts or molds) were negative, while the results of mycotoxins concentrations were be greatly above the permissible limits or "tolerable weekly intake" (TWI) of ochratoxin A established by EFSA in 2006 in local pork and pork byproducts while the imported samples showed a very slightly increasing. Since ochratoxin A is stable and generally resistant to heat and processing, control of ochratoxin A contamination lies in the control of the growth of the toxin-producing fungi. Effective prevention of ochratoxin A contamination therefore depends on good farming and agricultural practices. Good Agricultural Practices (GAP) including methods to reduce fungal infection and growth during harvest, storage, transport and processing provide the primary line of defense against contamination with ochratoxin A. To the best of our knowledge this is the first report of mycological assessment, especially the mycotoxins in pork byproducts in Egypt.

**Keywords :** Egyptian markets, mycotoxicosis, ochratoxin A, pork meat, pork by-products

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