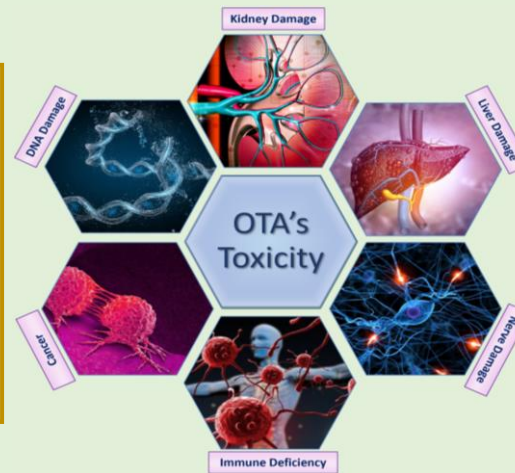


INTRODUCTION

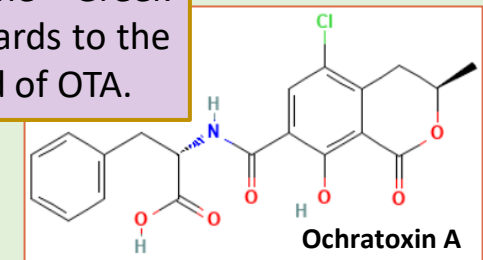
Ochratoxin A (OTA) is a mycotoxin, which is produced naturally from several species of the genera *Aspergillus* and *Penicillium*.



OTA's ascertained toxicity has been linked with various adverse effects on human health rendering its occurrence in the food supply chain a major problem.



To evaluate the safety of the corn-based products available in the Greek market with regards to the biological hazard of OTA.



OBJECTIVE

MATERIALS & METHODS

Seventy (70) corn-based products were purchased from local stores.



Pretreatment of the samples was performed through immunoaffinity columns (IACs) to assure the detection of the OTA even in negligible concentrations.



The potential occurrence of OTA was assessed with High-Performance Liquid Chromatography equipped with a fluorescence detector (HPLC-FLD).

The limits of detection (LoD) and quantification (LoQ) for the certain method were 0.2 µg/kg and 0.6 µg/kg, respectively.

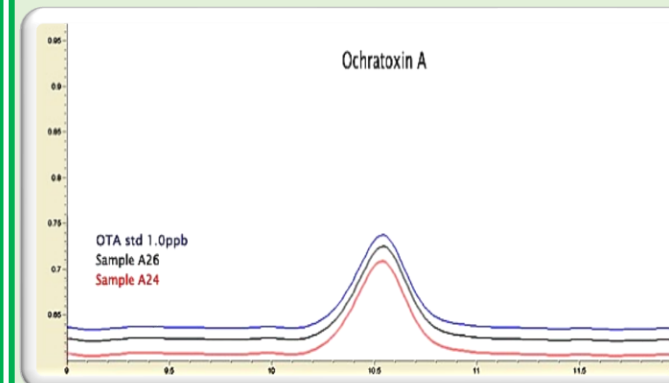


Figure 1. HPLC chromatogram of OTA standard comparing to representative samples.

OTA's concentration in positive samples ranged between 0.229 to 0.452 µg/kg, values significantly lower than the acceptable levels (<3.0 µg/kg) as presented in the Commission Regulation (EC) No 1881/2006.

RESULTS

Six out of seventy (6/70) samples were detected positive for the presence of OTA.

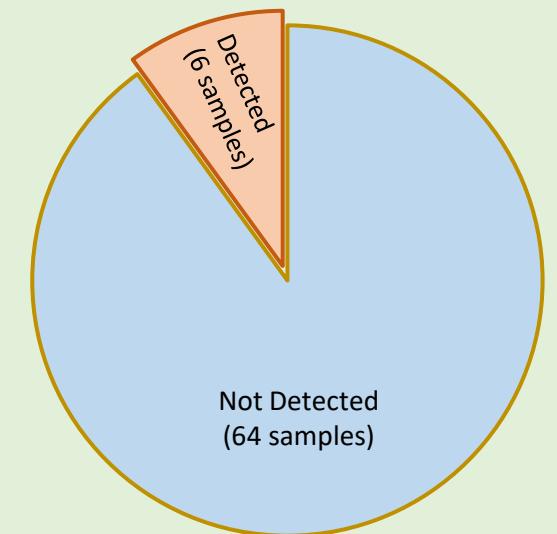


Figure 2. Schematic illustration of the occurrence of OTA in the examined samples.

CONCLUSION

These results demonstrate that the tested corn-based products from the Greek market could be considered as safe regarding OTA. Nevertheless, future studies include the evaluation of such samples for other significant harmful mycotoxins such as aflatoxins.

Acknowledgments

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