



# Copper (I)-Nicotinate Complex Promoted the Synthesis of Aflatoxin M1 and Q1 More Efficiently than Butylated hydroxytoluene in Aflatoxicosed Rats

Ahmed Y. Nassar<sup>1</sup>, Ahmed M. Ali<sup>2\*</sup>, Mona A. El-Baz<sup>1</sup>, Heba M. Saad Eldien<sup>3</sup>, Yousif S. Mohamed<sup>4</sup>, Fathy F. Abdel Latif<sup>4</sup>, Abdel Haleem M. Hussein<sup>2</sup> and Muammar Y. Nassar<sup>5</sup>

## Abstract:

In a previous work we have reported that synthetic copper (I)-nicotinate complex efficiently prevented induced nephrotoxicity by Aflatoxin B1 (AFB1) specifically by promoting phase II detoxifying glutathione- S-transferase activity. This work has been conducted to evaluate the antitoxic effect of the complex on the metabolism of AFB1. Forty five healthy male Wister albino rats were intoxicated (20 µg/kg B.W.) day after day for five weeks. The individually collected urine was assayed for AFB1, AFM1 and AFQ1 contents by HPLC technique. One third of them were co-treated by butylated hydroxytoluene (BHT) (0.05 g/kg B.W.), the second was co-treated by the copper complex (400 µg/kg B.W.) while the last was only intoxicated untreated group. Significant increase in the less toxic AFM1 and AFQ1 metabolites was recorded by any of the co-treating agents. The output of the least toxic AFQ1 fraction was significantly increased by the copper complex as regard to the BHT, (P

## Keywords:

Butylated hydroxytoluene, Copper(I)-nicotinate complex, Aflatoxin Q1, Aflatoxicosis, Chemoprotectant, Antioxidant

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