Aflatoxin levels in Chronic Hepatitis B patients with cirrhosis or Hepatocellular carcinoma in Balikesir, Turkey

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Aflatoxins (AFs), the secondary metabolites produced by species of naturally occurring Aspergilli, are commonly found in food such as cereals, dried fruits and juice, wine, beer, and spices. They are primary hepatotoxic and are well-known human carcinogens based on sufficient evidence from human studies. AFs are one of the environmental risk factors in the pathogenesis of HCC. There is a risk for the progressing Hepato Cellular carcinoma (HCC) in the chronic hepatitis caused by hepatitis virus which is an important health problem in all over the world. Chronic Hepatitis B (CHB) patients are at increased risk of cirrhosis, hepatic failure, and HCC. This study was designed to determine the serum aflatoxin B1 (AFB1), aflatoxin B2 (AFB2), aflatoxin G1 (AFG1), and aflatoxin G2 (AFG2) concentrations using the high pressure liquid chromatography (HPLC) in the CHB patients with or without cirrhosis and HCC, and the healthy controls in Balikesir, Turkey. The mean AFB1 and total AF levels in the CHB patients without HCC and cirrhosis were found to be statistically higher than the healthy controls. The mean AFB1 and total AF levels in the CHB patients with HCC were found to be statistically higher than the CHB patients with or without cirrhosis. The results suggest that the CHB patients exposed to AFs are at risk for developing HCC, which might be prevented by reducing consumption of the AF contaminated foods. The AF levels should be determined in susceptible patients for human health.

Biography

Sevtap Aydin has completed his PhD from Hacettepe University. She is an Associate Professor at Hacettepe University, Pharmaceutical Toxicology Department since 2013. She has 22 publications in reputed journals. She has 242 citations for her publications. She is the Board Member of Turkish Society of Toxicology and FABAD (Society of Pharmaceutical Sciences of Ankara). She has good experiences in the field of oxidative stress, cell toxicity, genotoxicity, immunotoxicity, phenolic compounds and toxins.

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