

Summary & Conclusion

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In a trial to study the random exposure with Aflatoxin B1 in school aged children as a liver mutagenic, one hundred apparently healthy school children from Bohira and Kaliobia governorates. The urine samples from all subjects included in this study were collected for the presence of Aflatoxin B1 in their urine by HPLC (of different socioeconomic standards, age, and sex).

The results of this study showed that total number of contaminated samples was 36 samples with a 36% as a percent of contamination.

In the female group it was 31.4% while in males the contamination percent was 41.3% which was higher.

From socioeconomic view it was found that the contamination percent was 23.5% in the high socioeconomic group while in the low one it was found to be 49% which was higher.

In the group less than 9 years old it was found that there was a positive correlation between the age and detectable level of AFB1 which was positive in this group this correlation was lost over 9 years of age.

This study could demonstrate that:

Low socioeconomic standard is highly exposed to large amount of AFB1 as a food contaminant.

Boys of low socioeconomic standard are highly exposed than females of the same group.

There is a positive correlation between the level of AFB1 in urine of children up to the age 9 years; after which this correlation is lost.

This study can conclude that the school age children in Egypt (at least the group included in this study) is under potential risk of exposure to AFB1. Which threaten their liver health status by a way or the other. The extent of the problem is not well defined but the hazards are many.

Potentially, the impaired liver health status may render the liver prone to any further insults or traumas. The correlation between repeated exposures to AFB1 and the high incidence of hepatitis B is already proved. Similar correlation is assumed to be present in hepatitis C in Egypt and that described incidence of positivity to AFB1 in school age children called our attention to pay more effort to explore these findings. This may open a new era that can solve the big dilemma of hepatitis C in Egypt.
