

Contamination of Food Stuff with Environmental Chemical: Health Risk †

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Abstract: Contamination of foodstuff due to environmental chemicals like heavy metals & Pesticides has become a global concern. Foodstuff contaminated with these chemicals cause toxicity and thus result in various health issues in human and animals. Many heavy metals & pesticides like carbosulfan, carbonate, phorate, organophosphorus and environment pollutants like lead, cadmium dioxin and organochlorine are associated with altered liver functions. Serum gamma-glutamyltransferase level increase by exposure to environmental pollutants (lead, cadmium), Serum gamma-glutamyltransferase within its reference range predicts clinical outcomes as a sensitive marker of oxidative stress in humans and decrease the activity of Butyrylcholinesterase (BChE). Serum bilirubin level increased with pesticides carbonate and phorate an organophosphorus in catfish (*Clarius batrachus*). Carbosulfan is used in agriculture for pest control which contains carbosulfan which increases the level of serum uric acid urea aspartate aminotransferase and lipid peroxidation and suppresses the activity of reduced glutathione adenosine triphosphatase enzyme. And hemoglobin and albumin level decrease by the effect of chronic carbosulfan exposure. Butyrylcholinesterase (BChE) deficiency is a metabolic disorder. The duration of the prolonged apnoea varies significantly depending on the extent of the enzyme deficiency. Bilirubin levels increase with pesticide exposure and affect carbohydrate metabolism. This article focuses on liver function disorder caused due to environmental chemicals.

Keywords: heavy metals; pesticides; environmental pollutant; liver function test; hepatotoxicity.

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Conflicts of Interest

The authors declare no conflict of interest.