SUMMARY

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Aflatoxins are common environmental hazards in all the under developed countries of the tropics where they commonly contaminate food. They are toxic to most species of animals and are among the most powerful carcinogenic agents known the liver is the principal target for toxicity.

Metabolic derangements caused by aflatoxins include depression of protein and enzyme synthesis, disorder of lipid metabolism and immunological suppression. The aetiology and pathogenesis of kwashiorkor remains some what obscure. Similarities in the geographical and climatic prevalence of kwashiorkor and aflatoxins and similarities in the metabolic derangements caused by aflatoxins and those observed in kwashiorkor. (*Hendrickse - 1984).*

The aim of this work was to measure level of aflatoxins and their metabolites in blood and urine of 30 children admitted to Benha University Hospital 20 of whom were suffering from kwashiorkor and 10 well nourished children (control) [body weight of over 80% of the Boston 50th centile] admitted for minor intercurrent illness.

All the cases were subjected to full history taking and clinical examination

together with estimation of their total serum proteins, albumin and Hb% and anthropometric measurements.

Urine and blood samples were analyzed for the presence of aflatoxins and their metabolites.

Aflatoxins and /or their metabolites were detected in ll children out of 20 children with kwashiorkor (55%) .

6 children with kwashiorkor had +ve blood samples for aflatoxins and /or their metabolites (30%).

8 children with kwashiorkor had +ve urine samples for aflatoxins and /or their metabolites (40%).

Neither aflatoxins nor their metabolites were detected in any case of control group of children.

The high prevalence of aflatoxins in kwashiorkor cases in Benha with high concentration mean establish an association between aflatoxins and kwashiorkor. The nature of which remains obscure but includes the possibility of a causal association.

Children with kwashiorkor are clearly at greater risk from aflatoxins than normal children.

A situation could be envisaged in which after an initial insult to the liver, impaired ability to handle and excrete aflatoxins creates a vicious cycle in which serum aflatoxin values rise producing more damage to liver which progressively declines the ability of liver to handle these substances.