Blood pyruvate in reiaton to certain hepatlc disorders

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Pyruvate are intermediate product of carbohydrate metabolism and are derived mainly from glycolytic reactions inthe muscles and erythrocytes. As the liver is intimatly concerned with intermediate carbohydrate metabolism. So we estimated intermediate carbohydrate metabolism (blood pyruvate) in apparently healthy subjects at different age groups and also on selected liver affection, to fined the affect of various hepaticdisorder on blood pyruvic acid levels in both fasting and post prandial. The present study include 138 subjects, they were classified into the following groups:-A) Control group: include 80 apparently healthy individulas.This group was subdivided into the following groups accordingto age:-1. Children group: 16 individulas.2. Adolescent group: 23 individuals.3. Adult group: 41 individulas.B) The pathological cases: were subdivided into:-[1] Bilharzial group: 36 patients.- 14 patients with simple bilharzial affection.- 10 patients with bilharzial hepatomegally.7 patients with bilharzial hepatosplenomegally.5 patients with active bilharzial hepatic fibrosis.[2] Other parasitic infestation group: 6 patients.[3] Viral hepatitis group.': 11 patients.- 5 patients with acute viral hepatitis.- 6 patients with chronic hepatitis.[4] Liver malignancy group: 5 patients.The following results were obtained:-* In control group:Increase in both fasting and post prandial blood pyruvic acid levels in children group of normal control ascompared to adolescent and adult groups, this increase was significant only in post prandial level. In all control groups, the post prandial level is higher than the fastinglevel.* In patholgical cases:In simple bilharzial patients, the fasting and post prandial blood pyruvic acid levels showed insignificantchange as compared to control.In bilharzial hepatomegally, bilharzial hepatosplenomegally and bilharzial hepatic fibrosis, both fasting andpost prandial blood pyruvic acid levels were significantly increased as compared to those of control. In other parasitic infestation, the fasting and post prandial blood pyruvic acid levels were increased as compared to those of control but this increase weresignificant only in the fasting level.In acute hepatitis, the fasting blood pyruvic acid level showed significant increase, while the post prandiallevel showed insignificant decrease as compared to control. In chronic hepatitis, both fasting and post prandial levels were significantly increased as compared to that of control. In liver malignancy, both fasting and post prandial blood pyruvic acid levels were significantly increasedas compared to those of control. In patients with different stages of bilharziasis there were a progressive increase in both fasting and post prandial blood pyruvic acid levels according to the severity of bilharzialstage. In

patients with viral hepatitis, there were increase in both fasting values of acute and chronic hepatitis, also post prandial values for chronic cases were increased whilethe values of acute were decreased.In all hepatic affection, there were a progressive increase in both fasting and post prandial blood pyruvic acidlevels according to the severity of hepatic affection except in acute hepatitis where there was insignificant decrease in post prandial level only.