LIV.52 IN ALCOHOLIC HEPATITIS

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ABSTRACT

Alcoholic Hepatitis is a leading cause of morbidity and mortality in India. There is no specific treatment for alcoholic hepatitis. Liv.52 has been reported to many workers to be effective in the treatment of infectious hepatitis. The study focuses on the effect of the Liv.52 therapy in alcoholic hepatitis for protection of liver with the help of investigating liver marker enzymes, antioxidant enzymes, lipid peroxidation and antioxidant vitamins. Present study includes well diagnosed 50 alcoholic hepatitis patients in between 33 to 55 years. The laboratory is equipped with semiautoanalyzer hence all investigations were carried out on semiautoanalyzer. Data were statistically analyzed by using the statistical package for social sciences (SPSS) version 10.0. Oxidative stress was assessed by estimating lipid peroxidation [LPO]. Activity of enzymatic antioxidants (superoxide dismutase [SOD], glutathione peroxidase [GPx], catalase) and heart profile enzymes, creatine kinase [CK-MB], lactate dehydrogenase [LDH], aspartate aminotransferase [AST] were measured. The activity of enzymatic antioxidants were reduced in hepatitis and this decreased activity significantly raised and comes near the normal range after 8 weeks therapy. The activity of liver profile enzymes has been comes to the normal range after the 8 weeks interval therapy of Liv.52. This study strongly suggests that the therapy with Liv.52 increases antioxidants and reduces lipid peroxidation of hepatic cellular and intracellular membranes and protects liver damage due to free radicals in alcoholic hepatitis.

Keywords: Alcoholic Hepatitis, Liv.52, Antioxidants, Liver profile enzymes.

INTRODUCTION

Alcoholic Hepatitis is a leading cause of morbidity and mortality in India. It is a form of toxic liver injury associated with chronic excess ethanol consumption. There are 40% of deaths occur from cirrhosis and more than 30% cases of hepatocellular carcinoma. The metabolic mechanisms associated with alcoholic hepatitis are oxidative stress, mitochondrial dysfunction, hypoxia, impaired proteasome function and abnormal metabolism of methionine, S-adenosyl methionine and folate.

As there is no specific treatment for alcoholic poisoning, reducing alcohol consumption is the only way to reverse liver damage or to prevent the disease from becoming worse. Lifestyle modifications including reduction of alcohol consumption, smoking and weight control are important initial approaches to the treatment. It may benefit with corticosteroids, methionine, pentoxifylline, vitamin C, vitamin E and vitamin B-complex.

Liv.52 has been reported to many workers to be effective in the treatment of infectious hepatitis. It is proved that the reduced, elevated enzymes, improved hepatocellular function, structure and total mass for functioning the protection of the hepatic parenchyma. It also acts as a powerful detoxifying agent. In this study, we planned to see the effect of the Liv.52 therapy in alcoholic hepatitis for protection of liver with the help of investigating liver marker enzymes, antioxidant enzymes, lipid peroxidation and antioxidant vitamins.

MATERIALS AND METHODS

Study design

The study was conducted in the department of Biochemistry Government Medical College Miraj, Krishna Institute of medical Sciences, Karad and Belgaum Institute of Medical Sciences, Belgaum. The ethical committee permission was taken for the treatment and to collect blood samples. The consent was obtained from all enrolled subjects.

Inclusion criteria

In present study 50 patients suffering from alcoholic hepatitis for past six months in between 33 to 55 years included from OPD (Out Patient Department) of Corporation Hospital Sangli, Government Medical College Hospital Miraj and Civil Hospital Sangli. All the patients in study were diagnosed with the help of physiological, pathological, biochemical and ultrasonographic examination.

Exclusion criteria

The patients associated with renal diseases, non alcoholic liver diseases, lung diseases, thyroid diseases, gastrointestinal diseases, tobacco chewers and smokers were...
Sample Collection
Blood samples were collected from Alcoholic hepatitis patient under sterile condition. Just before starting any treatment 10 ml blood was taken in plain bulb. Plasma was separated and used for estimation of TBARS (Thiobarbituric Acid Reactive Substance) and vitamin E. Erythrocytes were washed 4 times with 0.9% Nacl solution and used for estimation of SOD, Catalase, GPx and vitamin C. The sera separated were used for the investigation of total bilirubin, total proteins and activity of enzymes like SGPT, SGOT, ALP, GGT, 5¹NTP & LDH.

Analytical Methods
As described by Burge JA TBARS were estimated by employing MDA as standard. SOD was estimated by a method according to RANSOD method by RANDOX laboratories. GPx was assessed in RBC by UV method based on Paglia and Valentine. Catalase activity was measured by Beer and Seazer. The vitamin E and C concentration were done with the method of Baker H Frank D. The estimation of Bilirubin Protein and enzyme activity were measured by routine standard methods.

Limitations of the study
The laboratory is equipped with semiautoanalyzer hence estimation of Bilirubin Protein and enzyme activity were done with the method of Baker H Frank D. and Valentine. GPx was assessed in RBC by UV method based on Paglia and Valentine. Catalase activity was measured by Beer and Seazer. The vitamin E and C concentration were done with the method of Baker H Frank D. The estimation of Bilirubin Protein and enzyme activity were measured by routine standard methods.

RESULTS AND DISCUSSION
Table 1 shows that alcohol has significantly decreased plasma levels of MDA after Liv.52 therapy. Where as the activity of antioxidant enzymes came to normal range. Table 2 shows after treatment of Liv.52 liver profile enzymes activity were significantly decreased and increased levels of total proteins.

REFERENCES