Hepatic Histopathologic Side Effect Of Atorvastatin In Rats

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ABSTRACT

Statins are inhibitors drugs for hydroxymethylglotaryl coenzyme A. Atorvastatin is used for decreasing plasma cholesterol. This drug is absorbed immediately from the gastrointestinal tract. It has the hepatic and extra-hepatic catabolism. As, this drug influence on the liver, it probably effects on the liver tissue. The aim of this study was to investigate the effect of atorvastatin on rat hepatic tissue. In this study, 32 male rats were divided in to four equal groups: one control group and three test groups. Then the test groups were treated by Atorvastatin for 45 days with 10 mg (test group 1), 20 mg (test group 2) and 30 mg (test group 3). At the end of the treatment period, all rats were sacrificed. The livers of the rats (N=32) were separated. Changes of hepatic tissue were determined and the number of hepatocytes was counted. Data were analyzed by t-test and ANOVA using SPSS-11.5 software. There were no significant difference between the mean number of hepatocytes/mm² in the test and the control groups (P=0.150). Hepatitis was seen by the presence of neutrophiles around the branches of the portal vein in the test groups. This study showed that atorvastatin has time and dose-dependent undesirable effect on liver.

Key words: Atorvastatin, Liver, Rat, Hepatitis