

## Measurement of serum laminin level during the treatment of chronic hepatitis

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### Abstract

**Background and Objective:** Noninvasive methods have been proposed as surrogate markers for liver biopsy in recent years. It was shown that serum laminin level increases with the development for liver fibrosis. The aim of this work was to determine serum laminin level cutoff point for predicting liver fibrosis, highlighting its diagnostic value and determining the effect of treatment on its level.

**Materials and Methods:** In this case-control study during 2008-09, serum laminin levels in chronic hepatitis patients (n=62) and controls (n=20) before the beginning of the treatment and three times in a 2 month's interval i.e. 2.4 and 6 months after the beginning of the treatment were compared by ELISA and stages of fibrosis were assessed according to the liver biopsy.

**Results:** Mean serum laminin concentration in patients (91.9±20.9 ng/ml) was greater than the control (46.2±10.2 ng/ml, P<0.05). Serum levels of laminin in all stages of hepatic fibrosis were significantly higher than those of the healthy controls (P<0.05). A cutoff point of 52.0 ng/ml of laminin serum was obtained for the discrimination of patients with liver fibrosis than the healthy control showed a good sensitivity (96.8%) and specificity (80%). After 6 months of treatment, a gradual decrease in serum laminin level was observed, however the level was still higher than that of the healthy group (P<0.05).

**Conclusion:** The findings of this study suggest that serum laminin level is a useful non-invasive marker of liver fibrosis due to strong positive correlation between serum laminin level and the degree of liver fibrosis.

**Keywords:** Chronic hepatitis, Hepatic fibrosis, Laminin, Treatment

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