Serum Type III Procollagen Peptide and Laminin P1 Levels as a Diagnostic Tool for Monitoring the Progression of Liver Fibrosis in Cirrhosis.

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Diagnosis, prognosis and treatment of liver fibrosis and cirrhosis are possible by determining procollagen III N-peptide and laminin P1 levels in serum. We have investigated the serum levels of aminoterminal procollagen III peptide and laminin P1 in experimentally induced liver fibrosis. The liver injury was induced by intraperitoneal injections of Dimethylnitrosamine (DMN) in doses of 1 μl (diluted 1:100 with sterile saline)/100 g body weight. The injections were on the first 3 consecutive days of each week over a period of 3 weeks. The animals were sacrificed on days 7, 14 and 21 from the beginning of exposure. The serum levels of procollagen III peptide and laminin P1 were determined by radioimmunoassay (Hoechst AG, Frankfurt, Germany). A significant increase was observed in both procollagen III peptide and laminin P1 levels on days 7, 14 and 21 after induction of the liver injury. The maximum increase was on day 21 in both cases. The results suggest that determination of procollagen III peptide and laminin P1 levels in the serum can be used as a diagnostic tool for monitoring the progression of liver fibrosis and alcoholic cirrhosis.

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