

Date: 3rd November-2025

CLINICAL AND LABORATORY EVALUATION OF COLLAGEN TYPE III AND
IV LEVELS IN PATIENTS WITH CHRONIC HEPATITIS AND PULMONARY
TUBERCULOSIS

Йитмасова Тухфа Давлатовна ³

yitmasova.tohfa@bsmi.uz

Abu Ali ibn Sino Bukhara State Medical Institute

Abstract:

The present study was conducted at the Bukhara Regional Infectious Diseases Hospital and involved 122 patients diagnosed with chronic hepatitis, who were treated under inpatient conditions. To provide reliable comparison, a control group of 30 healthy individuals was also examined. The main objective of the study was to determine the clinical and biochemical significance of collagen type III and type IV levels in the blood serum of patients suffering from chronic hepatitis associated with pulmonary tuberculosis.

Only patients with clinically and laboratory-confirmed tuberculosis were included according to the study's inclusion criteria. To ensure accuracy in evaluating FibroTest scores, all participants were required to undergo complete blood tests including key biochemical parameters. Blood samples were collected before the initiation of anti-tuberculosis therapy, in order to eliminate pharmacological interference and to assess the baseline state of hepatic fibrogenesis.

The assessment of collagen type III and IV provides valuable information about the degree of fibrosis and extracellular matrix remodeling in the liver. These parameters may reflect both inflammatory activity and tissue repair mechanisms occurring in chronic hepatitis patients with coexisting tuberculosis.

Preliminary findings suggest that the evaluation of serum collagen fractions may serve as a non-invasive diagnostic tool for determining the extent of hepatic fibrosis and for monitoring the efficacy of therapeutic interventions in complex infectious conditions. This study underlines the importance of integrating collagen-based biomarkers into the clinical management of chronic liver diseases complicated by tuberculosis infection.

Keywords: chronic hepatitis, pulmonary tuberculosis, collagen type III, collagen type IV, liver fibrosis, FibroTest, biochemical markers, co-infection.

