

## **Biopsy or Biomarkers: Which Is the Sample of Choice in Assessment of Liver Fibrosis?**

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**Abstract :** Background: The aim of the study is to assess the diagnostic value of fibrotest and hyaluronic acid in discriminate between insignificant and significant fibrosis. Also, to find out if these parameters could replace liver biopsy which is currently used for selection of chronic hepatitis C patients eligible for antiviral therapy. Study design: This study was conducted on 52 patients with HCV RNA detected by polymerase chain reaction (PCR) who had undergone liver biopsy and attending the internal medicine clinic at Ain Shams University Hospital. Liver fibrosis was evaluated according to the METAVIR scoring system on a scale of F0 to F4. Biochemical markers assessed were: alpha-2 macroglobulin ( $\alpha$ 2-MG), apolipoprotein A1 (Apo-A1), haptoglobin, gamma-glutamyl transferase (GGT), total bilirubin (TB) and hyaluronic acid (HA). The fibrotest score was computed after adjusting for age and gender. Predictive values and ROC curves were used to assess the accuracy of fibrotest and HA results. Results: For fibrotest, the observed area under curve for the discrimination between minimal or no fibrosis (F0-F1) and significant fibrosis (F2-F4) was 0.6736 for cutoff value 0.19 with sensitivity of 84.2% and specificity of 85.7%. For HA, the sensitivity was 89.5% and specificity was 85.7% and area under curve was 0.540 at the best cutoff value 71 mg/dL. Multi-use of both parameters, HA at 71 mg/dL with fibrotest score at 0.22 give a sensitivity 89.5%, specificity 100 and efficacy 92.3% (AUC 0.895). Conclusion: The use of both fibrotest score and HA could be as alternative to biopsy in most patients with chronic hepatitis C putting in consideration some limitations of the proposed markers in evaluating liver fibrosis.

**Keywords :** fibrotest, liver fibrosis, HCV RNA, biochemical markers

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