



## **Editorial**

### **Liver fibrosis and noninvasive serum based biomarkers**

Liver is one of the major organs in the body with very important functions; Among different diseases of this organ, Liver fibrosis is a situation in which the normal architecture of liver will change lead to alteration in liver function, nodule formation, cirrhosis and ultimately mortality. Therefore, evaluation of liver fibrosis will provide useful information for diagnosis and therapeutic decision. There are various methods for assessment of liver fibrosis, classified as invasive and noninvasive. Liver biopsy, still the gold standard method, has some major limitations, and in addition, the acceptability of this method by patients, is low.

Now, Scientists around the world are trying to find serum-based noninvasive markers, susceptible to surrogate liver biopsy. In recent years there are advancements in these noninvasive methods and researchers introduce us various serum markers (individually or in panel models). We also examined the efficacy of some of these tests (Hyaluronic acid, Laminin and N-terminal peptide of procollagen type III) in chronic hepatitis patients. The findings were compared to the results obtained from other non invasive panels, such as Age-platelet index, AST to platelet ratio index, AST to ALT ratio index, Fibro Q and FIB4. Surprisingly the results were in good correlation with liver biopsy and the statistical analysis(sensitivity, specificity, positive and negative predictive values), were reasonable (details of this study are presented in: Liver Biopsy book, Published by In-Tech, 2011, ISBN 978-953-307-644-7, Chapter 22, 343-460). It should be mentioned that, these noninvasive biomarkers, are still in their primary phase but may be helpful in diagnosis or in monitoring of liver fibrosis in the future.

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