Introduction

Chronic liver disease (CLD) is defined as the continuity of clinical and biochemical evidence of hepatic dysfunction for longer than six months. ***(Suchy ,1996).***

Fibrosis is a frequent, life threatening complication of most chronic liver diseases. Despite major achievements in the understanding of its pathogenesis, the translation of this knowledge into clinical practice is still limited. In particular, non invasive and reliable serum biomarkers indicating the activity of fibrogenesis are scarce ***(Gressner et al., 2007)***.

Up till now, liver biopsy is essential in diagnosis of liver fibrosis. Beside invasiveness, liver biopsy has many complications like sampling error, tissue injury and bleeding (***Afdehal and Unes, 2004***). Morever many patients are reluctant to over go repeated biopsies, which limit the ability to monitor disease progression. Sampling error and costs of liver biopsy should also be considered ***(Vozar, 2005)***.

This situation strengthens the need for harmless, alternative and complementary non invasive serum biomarkers (***Bataller and Brenner, 2005***).

The fibrogenic master cytokine is transforming growth factor (TGF β)-followed by platelet derived growth factor (PDGF) (***Greets, 2001***).

TGF β concentrations are elevated in and correlated with the severity of liver disease suggesting that cytokine as a non invasive biomarker of

hepatic dysfunction and an indirect clinical parameter of fibrogenesis ***(Filisiak et al., 2002*)*.**

The actions of human Growth hormone (hGH) on bone, cartilage, adipose tissue, muscle, etc.. after it is released from anterior pituitary gland is mediated by insulin like growth factor-1 (IGF-1) which is mainly synthesized in the liver (***Donaghy et al., 2003***). Chronic liver disease is associated with marked changes in body composition. These changes are accompanied by impaired generation of IGF1 an insulin like growth factor binding proteins***(Vyzantiadis et al., 2003.)***

Poor growth and low anthropometric measurements mainly for height for age are usually apparent in between children with chronic liver diseases***.(Sokol and Stall., 1990)(Rodrigues et al., 2001) and (Cortez et al***., ***2009***).

Despite the fact that chronic liver disease may lead to life-threatening complications such as cirrhosis and HCC, most patients of chronic liver disease are asymptomatic and unaware of their liver disease, on diagnosis these patients report a significant reduction in health –related quality of life, depression and emotional distress(***Castera et al., 2006)***.