# Introduction

Alpha-fetoprotein (AFP) is a glycoprotein, produced by the liver and its level decreases below 10 ng/ml after birth. The relationship between hepatitis C virus (HCV) infection and serum AFP level in patients with hepatocellular carcinoma (HCC) remains unclear. AFP level is significantly elevated in 70% of patients with HCC. In addition the higher level was also observed in liver regeneration and in chronic HCV infection. (**Current Hepatitis Reports., 2008**).

HCV is known to be a human carcinogen based on sufficient evidence from studies in humans. In addition, of those exposed to HCV, about 40% recover fully, but the remainder, whether they have symptoms or not, become chronic carriers of these, 20% develop liver cancer (**Van der Poal., 1999)**.Very little is known about the replication cycle of HCV, because there is no in vitro cell culture system that is permissive for virus replication (**Purcell., 1994**).

People with hepatitis C who have cirrhosis should have regular screening tests for hepatocellular carcinoma, which usually includes an ultrasound examination of the liver plus a blood test (alpha-fetoprotein level) every year or every other year **(El-Serag HB and Manson AC., 1999).**

In patients with hepatitis C treated with combined therapy, abnormal baseline AFP levels substantially declin, usually to below 10 ng/ml. subjects unable to achieve viral clearance on therapy also have a significant decline in AFP (**Liu YJ., 2005).**