



INTRODUCTION

The prevalence of Hepatitis C virus (HCV) is estimated to be about 3% of population which is corresponding to about 170 millions worldwide. Up to 20% of Egyptians are evidenced to be HCV infected Mostly in rural areas and older age because of parenteral anti-schistosomal treatment in beginning of 1950s (*Dubuisson, 2007*).

Serum alpha- fetoprotein (AFP) is a fetal glycoprotein produced by the yolk sac and fetal liver following birth, AFP levels decrease rapidly to less than 20 ng/ml and increase significantly in certain pathologic conditions. Serum AFP is a debated, but routinely used marker for hepatocellular carcinoma (HCC) in patients with chronic liver disease. Yet, significant elevations of AFP are commonly seen in non-hepatic malignancies and benign conditions, such as acute and chronic viral hepatitis (*Cupta et al., 2003*).

Interferons are both antiviral and immunomodulatory agents. They are natural mediators or cytokines secreted by the body cells as part of the first line defense against viruses and bacteria before antibodies appear. There are three subclasses of interferons, interferon alpha, interferon beta and interferon gamma. Interferon alpha is the subclass currently used in the treatment of chronic hepatitis C, chronic hepatitis B and Chronic hepatitis D (*Figlerowicz et al., 2004*).

Ribavirin (Virazol) is a guanosine analogue which inhibits replication of wide range of DNA and RNA viruses including HBV and HCV. Its mechanism of action is not completely understood but is believed to have an antiviral effect by altering the intracellular nucleotide pool and messenger RNA formation. It is indicated in chronic viral



Hepatitis as an adjuvant therapy to interferon especially in cases that fail to show an early response to interferon alone (*Jacobson et al., 2002*).