

## INTRODUCTION

Hepatitis C Virus is recognized as a major threat to global public health , an estimated 170 million people worldwide are infected, most of them chronically infected and at risk for liver cirrhosis and hepatocellular carcinoma , the national prevalence rate of HCV antibody positivity has been estimated to be between 10-13% (*Mohamed ., 2004*).

Hepatitis C virus genotype 4 is the most frequent cause of chronic hepatitis C in Middle East and North Africa , in Egypt, 73 to 90% of cases of chronic hepatitis C are caused by genotype 4 , genotype 4 is the least-studied hepatitis C virus genotype and was considered a difficult to treat genotype due to the disappointing response of chronic hepatitis C genotype 4 to conventional interferon monotherapy , recent reports showed that pegylated interferon and ribavirin combination therapy markedly increased the sustained virologic response "SVR" rate to 55-70% (*Kamal et al., 2007* ).

It is unclear why infection with HCV results in chronic infection in most cases , genetic diversity of the virus and its tendency toward rapid mutation may allow HCV to constantly escape immune recognition , host factors may also be involved in the ability to spontaneously clear the virus , infection with HCV during childhood appears to be associated with a lower risk of chronic infection, approximately 50-60% , finally, there seem to be ethnic differences, with lower risk of chronicity in certain populations (*Stefan et al.,2009*).

Thirty percent of people infected with HCV spontaneously clear the virus from their system within six months, according to studies done in Egypt , the rest develop chronic hepatitis, which in about a quarter of cases leads to cirrhosis and liver failure in 20 to 30 years (*Sharaf Eldin ., et al 2008* ).

Patients who failed to clear the virus three months after the onset of symptoms were considered for antiviral therapy , various factors contribute to optimal response to antiviral therapy , including genotype, baseline viral load, doses and duration of therapy, and degree of early response , genotype is often regarded as the most critical of these factors , early virologic response "EVR" at week 12 is a reliable method for prediction of SVR in patients with chronic hepatitis C genotype 4 provided that therapy was completed for at least 36 weeks (*Shobokshi ., et al 2003*).