Summary & Conclusion

Hepatitis C virus infection is a major cause of chronic liver disease worldwide; approximately 170 million people are infected. Chronic infection occurs in 50-80% of cases and eventually leads to cirrhosis and hepatocellular carcinoma**.** Egypt has possibly the highest hepatitis C virus prevalence worldwide.

Therapies for the management of chronic hepatitis C (CHC) have developed from monotherapy to pegylated interferon α (PEG-IFN α) and ribavirin combination therapy, which is now regarded as the standard of therapy. However, responses are not uniform across all genotypes and it is not possible to predict those patients who will benefit from therapy.

The molecular mechanisms underlying lack of therapeutic response remain unknown. Considering the length of antiviral therapy, as well as its side effects and costs, accurate prediction of treatment response prior to initiation of treatment is critical. A number of host and viral related factors have been identified that influence treatment outcomes and independently predict response to treatment.

The objective of the present study was to retrospectively evaluate the effect of some of host and viral parameters on early virological response to combined therapy with peg-interferon and ribavirin in chronic HCV patients of genotype 4 and the Predictors of response to the proposed treatment.

All patients were subjected to: history taking, clinical examination, BMI was calculated, routine laboratory investigations as a preparation of IFN therapy (which included CBC, complete liver biochemical profile, serum creatinine, FBS, ANA, AFP, Anti Bilharzial antibody, Free TSH,

HBsAg and Quantitative HCV RNA by PCR), Abdominal ultrasonography, liver biopsy for histopathology assessment according to METAVIR. The end point of the study is early virological response defined as a drop of ≥ 2 log in serum HCV viral load at 12 weeks after start of therapy.

The early virological response to treatment was correlated with the following parameters :

- **Demographic factors** (age, gender and BMI)
- **Type of pegylated interferon** (PEG-INF alfa 2a or PEG-INF alfa 2b)
- **Liver biochemical profile** (Total bilirubin, Alkaline phophatase, albumin, AST and ALT)
- **Ultrasound finding** (US hepatomegaly and US splenomegaly)
- **diabetic status**
- **Viral kinetics:** HCV viral load
- **liver Histopathology:** stage of fibrosis and grade of activity according to METAVIR score.
- **blood parameters** (HB, Platelet, WBCs)