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.

This study has been conducted on 500 patients suffering from chronic hepatitis C who were previously diagnosed and treated in hepatology research unit at shebin el kom hospital. These patients received antiviral treatment in the form of pegylated interferon alfa-2a (180mcg/week) & pegylated interferon

alpha 2b (1.5 mcg / kg BW once weekly) with oral ribavirin (800-1200 mg/d) based on the body weight (<75 kg or >75 kg respectively).

The aim of this work is evaluating the effect of clinical parameters on the outcome of response of interferon and ribavirin therapy used in treatment of H.C.V patients

The following parameters:

1--Age

2--Sex

3-body mass index

4-hepatosplenomegally by Ultrasound

5--Treatment with interfreron and ribavirin(Dose and duration of interferon)

6--Patients with interferon and ribavirin treatment had PCR

A- after 1 months therapy

B- patients after 3 months therapy

C- patients after 6 months therapy

The results of this study showed that virological responders were 359 out of 500 patients (71.8%) while 141 patients (28.2%) failed to achieve response.

- **From the results of our study we can conclude that**:
  - (Gender): Male represented 30.36% of responders and 92.91% of non responders , Compared to female the difference was statistically high significant ($P< 0.01$).
  - (Age): Patients with age > 40 years represented 52.09 % of responders and 81.57% of non responders, compared to patients with age ≤ 40 years the difference was statistically high significant ($P< 0.01$).

- (BMI): Patients with BMI < 30 kg/m^2 is associated with better response rates (81.33% of responders) but patients with high BMI >30 kg/m^2 (obese patients) represented (18.67% of responders) with statistically significant correlation between BMI and response to treatment.

- There was high statistical significant difference (P< 0.05) between virological response in patients with BMI ≥ 30 kg/ m^2 and virological response in patients with BMI < 30 kg/ m^2.

- (Hepatomegally): Patients with Hepatomegally represented 34.82 % of responders and 92.85% of non responders, compared to patients with no Hepatomegally the difference was statistically high significant (P< 0.01).

- (slenomegally): Patients with Splenomegally represented 11.14% of responders and 35.46% of non responders, compared to patients with no splenomegally the difference was statistically high significant (P< 0.01)

- (Basal viral load): Patients with low and moderate viremia (PCR < 1 million IU/ml) represented **85.82%** of responders compared to patients with **14.18%** of non responders with high viraemia (PCR > 1 million IU/ml.) , there was statistically significant difference in response to treatment regarding pretreatment viral load.

- Males with BMI < 30 kg/ m^2 represented 19.77% of responder patients and 10.02% with BMI ≥ 30 kg/ m^2 , Compared to females the difference was statistically high significant (P< 0.01).

- Males with BMI < 30 kg/ m^2 represented 64.54% of non responder patients and 28.36% with BMI ≥ 30 kg/ m^2 , Compared to females the difference was not statistically significant (P> 0.05.

- The positive **Hepatomegally** with **Age ≤40** represented 14.76% of responder patients and 20.06% with **Age > 40** , Compared to the negative **Hepatomegally** the difference was not statistically significant (P> 0.05.

- The positive **Hepatomegally** with **Age ≤40** represented 17.02% of non responder patients and 75.18% with **Age > 40** , Compared to the negative **Hepatomegally** the difference was not statistically significant (P> 0.05.

- The positive **Hepatomegally** with **BMI <30** represented 28.42% of responder patients and 6.41% with **BMI ≥ 30** , Compared to the negative **Hepatomegally** the difference was not statistically significant (P> 0.05.

- The positive **Hepatomegally** with **BMI <30** represented 63.12% of non responder patients and 29.07% with **BMI ≥ 30**, Compared to the negative **Hepatomegally** the difference was not statistically significant (P> 0.05.

- The positive **Splenomegally** with **Age ≤40** represented 5.57% of responder patients and 5.57% with **Age > 40** , Compared to the negative **Splenomegally** the difference was not statistically significant (P> 0.05.

- The positive **Splenomegally** with **Age ≤40** represented 7.8% of non responder patients and 27.66% with **Age > 40** , Compared to the negative **Splenomegally** the difference was not statistically significant (P> 0.05.

- The positive **Splenomegally** with **BMI <30** represented 3.62% of responder patients and 7.52% with **BMI ≥ 30** , Compared to the negative **Splenomegally** the difference was high statistically significant (P< 0.01.

- The positive **Splenomegally** with **BMI <30** represented 18.44% of non responder patients and 17.03% with **BMI ≥ 30**, Compared to the negative **Splenomegally** the difference was high statistically significant (P< 0.01, .