# Assessment of Insulin Sensitivity in Patients with Chronic Hepatitis C

# Summary and Conclusion

Viral hepatitis C is one of the most important and serious endemic diseases all over the world. There is an increased frequency of diabetes in chronic liver disease. Also diabetes Mellitus is more prevalent in patients with chronic hepatitis C than in patients with other liver diseases and this occurs without any predisposing factors this suggests the role of hepatitis C in the pathogenesis of diabetes mellitus.

The study aimed to predict insulin sensitivity in patients with chronic hepatitis C, in a trial to predict the presence of insulin resistance in such patients and find out the causal relationship between hepatic pathology and insulin resistance and Beta cell function.

This study was conducted on two groups of subjects: Patients group which is twenty patients with chronic hepatitis C and the control ten healthy volunteers of the same age and sex. Both groups with the following exclusion criteria:

1- Those having WHR > 0.9 (males) or >0.8 (females).

2- Those having BMI > 25 $kg/m^2$ .

3-Acromegally, cushing syndrome and cushing disease.

4- Those receiving drug therapy as corticosteroids and β-antagonists.

5- Liver cirrhosis.

6- Patients with hepatitis B and Delta.

7- Diabetes mellitus

Both groups were subjected to the following:

1-Complete history taking and complete clinical examination.

2-Certain anthropometric studies such as: body mass index, waist hip ratio and mid-arm circumference.

3-Tests for hepatitis markers (HBSAg and HCAb) by ELISA method. Also we do PCR for detection of HCVRNA.

4-Liver function tests.

5-Fasting blood sugar concentration

6- Post prandial blood sugar concentration.

7-Measurements of fasting insulin level in serum.

8-Calculation of insulin resistance and Beta cell functions

9-Abdominal Ultrasonography.

10-Liver biopsy and Histological activity index

There was a statistical significant difference Insulin resistance (I.R) between the patients group and control group so that hyperinsulinemia and insulin resistance is higher in patients group than in control group.

There was a highly significant difference in the β-Cell function between the patients group and control group so that β-Cell function is higher in patients group than in control group

There is a significant positive correlation between insulin resistance, β-cell function and HAI grading so that the more severity the