Method: We studied 30 patients with chronic HCV infection diagnosed by PCR within previous 6 months and 20 healthy controls. Functional and morphological status of the liver were evaluated by ultrasonography and laboratory investigations including liver function tests and liver biopsy. Blood glucose and insulin levels were measured, BMI and insulin resistance were calculated accordingly. Patients having HOMA-IR >2.5 were labelled as IR.

Results: Chronic HCV patients with IR showed significantly higher mean values of BMI and fasting insulin than those without IR (P<0.000). Patients with IR were more likely to have steatosis (p = 0.006), higher necroinflammatory activity as they had higher scores of HAI (p = 0.05). No significant differences were found between the two groups regarding hepatic fibrosis.

Conclusion: HOMA-IR measurement could represent a novel marker to identify the cirrhotic patients at greater risk for the progression of liver disease. These findings may have important prognostic and therapeutic implications. Assessment of IR by HOMA-IR and improving insulin sensitivity are recommended in patients with HCV and related chronic liver disease.