

**INTERFERON-BASED THERAPY IN CHRONIC HEPATITIS C REDUCES CIRRHOSIS AND HEPATOCELLULAR CARCINOMA AND IMPROVES SURVIVAL: A NATIONWIDE, MULTICENTER STUDY IN TAIWAN**

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**BACKGROUND/AIMS:** We aimed to evaluate the long-term effect of interferon-alone and interferon-ribavirin combination therapy on reducing cirrhosis, hepatocellular carcinoma (HCC) and mortality in chronic hepatitis C (CHC) patients.

**METHODS:** 1,619 biopsy-proven CHC patients, including 1,057 received interferon-based therapy (760 interferon-ribavirin) and 562 untreated controls from three medical centers and one regional core hospital were enrolled.

**RESULTS:** The incidence of cirrhosis, HCC and survival during a follow-up period of 1.0 to 15.3 (mean 5.18) and 1 to 16 (mean 5.15) years in treated and untreated patients, respectively, were analyzed using Cox proportional hazards regression. The cumulative incidence of cirrhosis was 44.1% and 9.9% for untreated and treated groups, respectively, among non-cirrhotic patients ( $p=0.0008$ ). The cumulative incidence of HCC was 35.2% and 12.2% for untreated and treated groups, respectively, ( $p=0.0013$ ). The cumulative survival rate was 93.1% and 96.2% for untreated and treated groups, respectively, ( $p=0.3928$ ). Significantly lower incidence of cirrhosis, HCC and mortality were observed in sustained virologic responders (both interferon-alone and interferon-ribavirin) but not in nonresponders when compared with untreated patients. Hepatitis C virus genotype-1 (HCV-1) patients had significantly higher incidence of HCC compared with HCV-non-1 patients. In multivariate analysis, non-responder and age were independent factors associated with cirrhosis; pre-existing cirrhosis, non-responder, HCV-1 and age were associated with HCC; pre-existing cirrhosis and non-responder were correlated with mortality.

**CONCLUSION:** Both interferon-alone and interferon-ribavirin could reduce the risk for cirrhosis, HCC and mortality through achievement of sustained HCV clearance.

**Keyword:** survival, HCC, HCV