中文題目：病毒動力學比interleukin-28B 基因多型性對台灣慢性C型肝炎第一型病毒感染病患接受標準治療反應有較重要之預測效果

英文題目：Viral kinetics is a more important predictor than host interleukin-28B polymorphism for responses to standard-of-care for Taiwanese CHC patients with HCV genotype 1 infection

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Background: On-treatment virological responses and interleukin-28B polymorphism are the most significant pretreatment and on-treatment, respectively, factors predictive of treatment outcome in hepatitis C virus genotype 1 (HCV-1) patients. We aimed to compare the clinical significance of the two factors in Taiwanese patients

Materials and Methods: iIn 182 HCV-1 Taiwanese patients with 48-week peginterferon/ ribavirin, Rs8099917 genotype, rapid virological response (RVR, seronegativity of HCV RNA at treatment week 4) and complete early virological response (cEVR, non-RVR but seronegativity of HCV RNA at treatment week 12) were determined.

Results: Comparing to patients with rs8099917 TG/GG genotype, those with TT genotype had significantly higher RVR (46.2% vs. 19.2%, P=0.01) and sustained virological response (SVR, seronegativity of HCV RNA throughout 24-week post-treatment follow-up, 85.3% vs. 42.3%, P<0.001) rates, and lower relapse rate (9.5 % vs. 45.0%, P=0.001). Logistic regression analysis revealed that the strongest factor predicting an RVR was the carriage of rs8099917 TT genotype (odds ratio/ 95% confidence intervals [OR/CI]: 4.25/1.39-13.01), followed by lower viral loads (OR/CI: 3.63/1.84-7.17) and higher ribavirin exposure during the first 4 week (OR/CI: 1.27/1.12-1.44). The most important factor predictive of an SVR was the attainment of an RVR (OR/CI: 57.22/6.23-525.37), followed by the carriage of rs8099917 TT genotype (OR/CI: 10.06/3.12-32.44), lower viral loads (OR/CI: 2.23/1.00-4.93), male sex (OR/CI: 3.50/1.30-9.39) and aspartate aminotransferase-to-platelet ratio index (0.64/0.46-0.89). When on-treament factors were taken into account, the cEVR was the most important determinant to an SVR (OR/CI:54.98/9.07-333.38), whereas the influence of rs8099917 genotype became non-significant in non-RVR patients.

Conclusions: On-treatment virological response is more important than Rs8099917 TT genotype, both being independent factors, in predicting an SVR in Taiwanese HCV-1 patients.