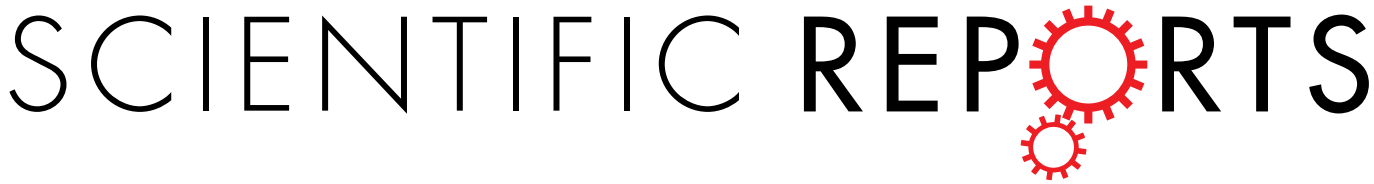

OPEN

Received: 13 July 2015
Accepted: 16 September 2015
Published: 15 October 2015

Peginterferon alfa-2a plus Weight-Based or Flat-Dose Ribavirin for Treatment-Naïve Hepatitis C Virus Genotype 2 Rapid Responders: A Randomized Trial

Chen-Hua Liu[1,4], Chung-Feng Huang[5,7], Chun-Jen Liu[1,3], Chia-Yen Dai[5,6,8], Jee-Fu Huang[5,6,8], Jou-Wei Lin[4], Cheng-Chao Liang[9], Sheng-Shun Yang[10], Chih-Lin Lin[11], Tung-Hung Su[1,3], Hung-Chih Yang[2,3,12], Pei-Jer Chen[1,3], Ding-Shinn Chen[1,3,13], Wan-Long Chuang[5,6,8], Jia-Horng Kao[1,3] & Ming-Lung Yu[5,6,8]

The impact of ribavirin (RBV) dosage on sustained virologic response (SVR) rates remains elusive in hepatitis C virus genotype 2 (HCV-2) rapid responders receiving 16 weeks of peginterferon (Peg-IFN) plus RBV. Treatment-naïve HCV-2 patients with rapid virologic response (RVR) received Peg-IFN alfa-2a 180 μg/week plus weight-based RBV (1,000 or 1,200 mg/day; cut-off body weight: 75 kg) for 6 weeks, and then randomly received Peg-IFN alfa-2a 180 μg/week plus weight-based (1,000 or 1,200 mg/day; n = 247) or flat-dose (800 mg/day; n = 246) RBV for additional 10 weeks. The primary endpoint was SVR_{24}. Patients receiving weight-based and flat-dose RBV therapies had comparable SVR_{24} rates (93.5% versus 91.9%, $P = 0.49$). The risk differences (RDs) of SVR_{24} receiving weight-based and flat-dose RBV arms were 7.1% [95% CI: 0.7% to 13.6%] in males, and −5.8% [95% CI: −12.1% to 0.5%] in females (interaction $P = 0.01$). The SVR_{24} rate was higher in males receiving ≥13 mg/kg/day than those receiving <13 mg/kg/day (96.3% versus 85.1%, $P = 0.001$). In conclusion, Peg-IFN alfa-2a plus weight-based or flat-dose RBV for 16 weeks provides comparable SVR_{24} rates in treatment-naïve HCV-2 rapid responders. However, males should receive weight-based RBV to achieve a high SVR_{24} rate.

Hepatitis C virus (HCV) infection remains the leading cause of cirrhosis, hepatic decompensation, hepatocellular carcinoma (HCC) and liver transplantation[1]. While HCV genotype 2 (HCV-2) infection is

[1]Department of Internal Medicine, National Taiwan University Hospital, Taipei, Taiwan. [2]Hepatitis Research Center, National Taiwan University Hospital, Taipei, Taiwan. [3]Graduate Institute of Clinical Medicine, National Taiwan University College of Medicine, Taipei, Taiwan. [4]Department of Internal Medicine, National Taiwan University Hospital, Yun-Lin Branch, Douliou, Taiwan. [5]Institute of Clinical Medicine and Faculty of Internal Medicine, College of Medicine, Kaohsiung Medical University, Kaohsiung, Taiwan. [6]Hepatobiliary Division, Department of Internal Medicine and Hepatitis Center, Kaohsiung Medical University Hospital, Kaohsiung, Taiwan. [7]Department of Occupational Medicine, Kaohsiung Municipal Ta-Tung Hospital, Kaohsiung, Taiwan. [8]Institute of Biomedical Sciences, National Sun Yat-Sen University, Kaohsiung, Taiwan. [9]Department of Internal Medicine, Far Eastern Memorial Hospital, Taipei, Taiwan. [10]Department of Internal Medicine, Taichung Veterans General Hospital, Taichung, Taiwan. [11]Department of Gastroenterology, Taipei City Hospital, Ren-Ai Branch, Taipei, Taiwan. [12]Department of Microbiology, National Taiwan University College of Medicine and National Taiwan University Hospital, Taipei. [13]Genomics Research Center, Academia Sinica, Taiwan. Correspondence and requests for materials should be addressed to J.-H.K. (email: kaojh@ntu.edu.tw) or M.-L.Y. (email: fishya@ms14.hinet.net)