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Huge Gap Between Clinical Efficacy and Community Effectiveness in the Treatment of Chronic Hepatitis C

A Nationwide Survey in Taiwan

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Abstract: Peginterferon/ribavirin provides a substantially high treatment efficacy for chronic hepatitis C virus (HCV) infections in Asians. Whether the clinical efficacy can be translated to community effectiveness remains unclear.

The disease awareness, treatment accessibility, recommendations, acceptance, and barriers to anti-HCV treatment were explored to clarify the issue with a 3-step nationwide investigation in Taiwan. A crude HCV-infected population was estimated using databases from 3 large-scale surveillance studies and age-/geographic-specific population database. HCV awareness and accessibility were investigated at the patient level in 58,129 residents. The recommendations/acceptances and barriers to treatment at the provider level were evaluated using a prospective, nationwide approach to 89 gastroenterologists/hepatologists.

The estimated 10-year interval age-adjusted anti-HCV-seropositive population is 745,109 (3.28%), with an anticipated HCV-viremic population of 554,361. Of anti-HCV-seropositive subjects, 36.2% had disease awareness. Among those with awareness, 39.6% had accessibility. The recommendation/acceptance rate of antiviral therapy was 70.6%. The treatment rate was 10.1% and 13.7% for the anti-HCV-seropositive and HCV-viremic population, respectively. With an anticipated treatment success rate of 80% in Taiwan, 8.1% of the anti-HCV-seropositive and 10.9% of the HCV-viremic population achieved successful treatment. The major treatment barriers were fear of adverse effects (37%), major disorders (17.6%), ineligibility for insurance reimbursement (17.6%), and lack of therapy awareness (11.3%).

Despite the high rates of treatment response and nationwide coverage of insurance reimbursement, there remains a large gap between clinical efficacy and community effectiveness in anti-HCV treatment in Taiwan. Increasing disease awareness/treatment accessibility and introducing new therapeutic strategies with high tolerability are warranted.

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Abbreviations: AE = adverse event, CHC = chronic HCV infection, DAA = direct acting antiviral, HCC = hepatocellular carcinoma, HCV = hepatitis C virus, OR = odds ratio, PegIFN = pegylated interferon, RBV = ribavirin, SVR = sustained virological response.

BACKGROUD

Hepatitis C virus (HCV) infection is one the leading causes of chronic hepatitis, liver cirrhosis, and hepatocellular carcinoma (HCC) worldwide.[1,2] HCV infection is endemic in Taiwan, with the prevalence rates of antibodies to HCV (anti-HCV) ranging from 4.4% to 8.6%; however, there are scattered hyperendemic areas in Southern Taiwan that have a very high anti-HCV prevalence of 22.4%.[3,4] Peginterferon (PegIFN) along with ribavirin (RBV) combination therapy has been the standard of care for patients with chronic hepatitis C for more than a decade,[1] and it remains the mainstay of current anti-HCV therapy in the majority of Asian countries where interferon (IFN)-free direct acting antivirals (DAAs) regimens are unavailable or unaffordable. Chronic HCV infection (CHC) has become a curable disease[5] through the achievement of a sustained virological response (SVR), which leads to a significantly reduced risk of cirrhosis, HCC and mortality.[6–9] The treatment efficacy is particularly remarkable in Asian patients. A 48- or 24-week

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