Drugs 1998 Oct; 56 (4): 617
0012-6667/98/0010-0617/$1.00/0

Rifapentine

A Viewpoint by C.M. Tam

Tuberculosis and Chest Service, Wanchai Chest Clinic, Hong Kong

A key issue in the success of a tuberculosis control programme is the achievement of a high cure rate via directly observed treatment. The supervision of anti-tuberculosis treatment will be greatly simplified if the dosage interval can be increased. Rifapentine offers hope in this respect. Its long half-life allows for once-weekly administration. In *in vitro* studies, rifapentine has demonstrated efficacy against mycobacteria similar to rifampicin.

Clinical trials have been carried out in China and are underway in South Africa and the US. Studies in China and Hong Kong, which used Chinese-manufactured rifapentine, showed that rifapentine had a low level of toxicity. However, regimens containing rifapentine given once a week in the Hong Kong trial yielded an unacceptably high relapse rate and the Chinese formulation was found to have low and variable bioavailability.[1,2]

Taking the drug shortly after a meal enhances drug absorption and improves bioavailability. It was not known whether a higher dosage with improved bioavailability would improve treatment outcome. On the other hand, the preliminary findings of the US studies, which used a different formulation, showed that once-weekly rifapentine was not suitable for HIV-positive patients, as they had a high rate of relapse with rifampicin-resistant strains.[3] Results of the main study are pending. Together with these data, although there are areas of uncertainty, further studies would probably throw light on the best way to use rifapentine, with the potential to make a big step forward in the chemotherapy for tuberculosis. ▲

References

1. Tam CM, Chan SL, Lam CW, et al. Bioavailability of Chinese rifapentine during a clinical trial in Hong Kong. Int J Tuberc Lung Dis 1997; 1(5): 411-6
2. Tam CM, Shan SL, Lam CW, et al. Rifapentine and isoniazid in the continuation phase of treating pulmonary tuberculosis: initial report. Am J Respir Crit Care Med 1998; 157: 1726-33
3. Vernon A, Villarino E, O'Brien R, et al. Relapse with rifampin mono-resistant TB (RMR-TB) in HIV-positive TB patients treated with a once weekly rifapentine-containing regimen. Int J Tuberc Lung Dis 1997; 1 (5) Suppl. 1: S51-2