Efficacy of combination tenofovir plus lamivudine versus tenofovir monotherapy in patients with chronic hepatitis B virus

Introduction

Highly effective oral antivirals (OAV) have been licensed for use in Chronic Hepatitis B (CHB). Efficacy of Tenofovir (TDF) and Entecavir (ETV) monotherapy has been demonstrated in randomised controlled trials. However, there may be a role for de novo combination therapy to reduce the development of resistance. For this reason, the authors offer patients combination therapy with TDF and Lamivudine (LAM) irrespective of whether they are OAV-naive or experienced. In this study the authors test the hypothesis that combination therapy is superior to TDF monotherapy as assessed by viral suppression and ALT normalisation.

Methods

A retrospective prospective study of 185 patients (male=135), from a single centre, was performed. Viral suppression, was defined as <80 IU/ml and ALT normalisation <40 IU/l. Our real life data was compared with a published meta-analysis on the use of all treatments for HBV, but which reports TDF as the most potent OAV.1

Results

Median age of patients was 45 (range 18–81). 74% were eAg negative prior to starting TDF and LAM. Median ALT at baseline was 46 (range 12–1141). 86 patients were treatment naive prior to commencing combination therapy. Of 99 patients previously exposed to OAV’s, 65 were partial responders and 34 virally suppressed when switching to TDF and LAM. 125/185 patients had completed 12 months and 84, 24 months of combination therapy. Overall viral suppression was recorded in 84% and 94% at 12 and 24 months respectively and ALT normalisation was seen in 67% and 74% at 12 and 24 months respectively. In the OAV-naive group viral suppression was 81% compared with 84% in the OAV-experienced and ALT normalisation was 56% and 72% respectively in these groups at 12 months. In the published meta-analysis, viral suppression was 91% and ALT normalisation 67% at 12 months in a treatment naive group. Comparing real life with published data showed no statistical significance for viral suppression and normalisation of ALT for combination versus monotherapy (p=0.12 and p=0.2 respectively).

Conclusion

These data highlight the efficacy of TDF in generating and sustaining viral suppression and ALT normalisation at 12 months and beyond. Combination OAV therapy versus TDF monotherapy does not show superiority. Furthermore, there is no reported resistance with TDF to date, but data are limited to 4-year follow-up. Given that OAV resistance may occur over many years, combination OAV may still have a role in the treatment of CHB, however larger randomised controlled trials are needed to determine this.

Competing interests

None.

Keywords chronic hepatitis B (CHB), lamivudine (LAM), oral antiviral (OAV), resistance, tenofovir (TDF), viral response.

REFERENCE