

INTRODUCTION

- Tenofovir Alafenamide (TAF) is one of the first-line treatments (Rx) for chronic hepatitis B (CHB), has comparable anti-viral effects with, and better renal and bony safety profile than Tenofovir Disoproxil Fumarate (TDF).
- We have showed switching from TDF to TAF Rx for 96 weeks resulted in further ALT improvement.
- Data remain lacking on its long-term effects on hepatic fibrosis.

AIMS

- The present study assessed the effects of TDF switching to TAF for 3 years (or 144 weeks) on hepatic fibrosis by AST to Platelet Ratio Index (APRI), Fibrosis-4 (FIB-4) score, and shear wave elastography (SWE).

PATIENTS AND METHODS

- A single center retrospective study on 53 patients with CHB who were initially treated with TDF, then switched to TAF to determine the dynamic patterns of ALT, AST, APRI and FIB-4 scores, and SWE improvement at Rx week (Rx wk) 144, and the associated factors.

RESULTS

Table 1. Baseline Characters

Variables	n (% , range)
Mean age, years	55 (28-80)
Age > 50 year-old	35 (66)
Male : Female	24 :29 (45.3 : 54.7)
Clinical evidence cirrhosis	8 (15.1)
Spleen > 12 cm	4 (7.7)
Mean baseline ALT (IU/L)	24.8 (7-108)
Mean baseline AST (IU/L)	25.7 (15-89)
Platelets ≤ 120 x10 ⁹ /L	6 (11.3)
Mean baseline APRI score	0.37 (0.13-0.92)
Mean baseline FIB-4 score	1.66 (0.49-5.33)

- TDF to TAF switching resulted in ALT, AST, APRI, and FIB4 improvement shown below.

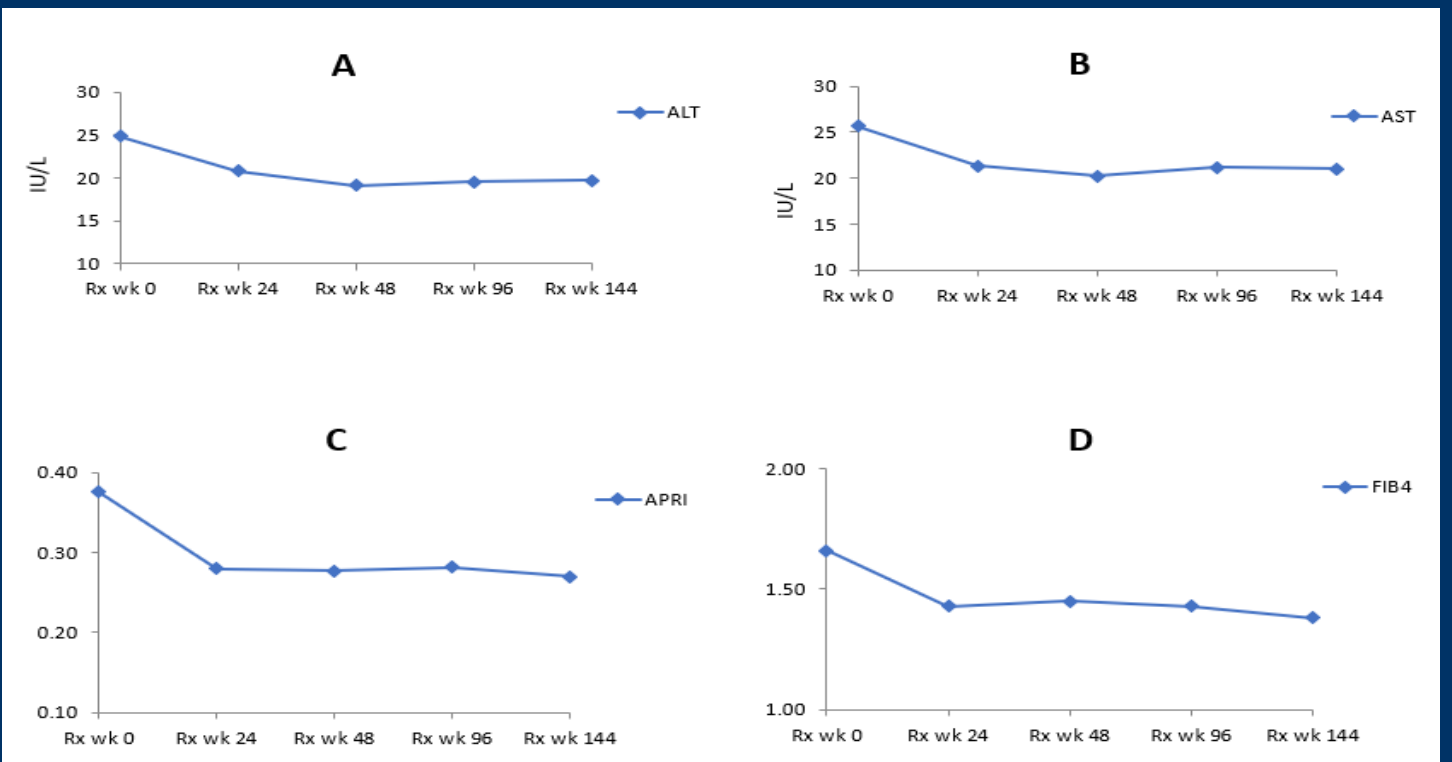


Figure 1. Persistent Mean Reduction of ALT (A), AST (B), APRI (C) and FIB-4 (D) scores from Baseline (Rx wk 0) to Rx wk 144 after TDF Switching to TAF

- The mean SWE reading was improved from 7.05 to 6.30 kPa.
- The rate of fibrosis stage 0-1 was increased from 32/50 (64%) to 43/50 (86%) after a mean of 108 weeks of TDF to TAF switching (4-240) .

RESULTS CONTINUED

Table 2. Univariate and Multivariate Analysis for Factors Associated with SWE Improvement

Variables	Univariate p-value	Multivariate p-value
Pre-Rx spleen size > 12 cm	0.031	0.016
Platelets < 120 x10 ⁹ /L	0.018	0.250
APRI < 0.5 at Rx wk 24	0.047	0.448
FIB-4 < 1.45 at Rx wk 24	0.055	0.244
ALT < 40 IU/L at Rx wk 24	0.460	
ALT < 30/19 IU/L at Rx wk 24	0.155	
AST < 40 IU/L at Rx wk 24	0.460	
AST < 30/19 IU/L at Rx wk 24	0.242	

CONCLUSIONS

- Switching from TDF to TAF for 3 years results in not only persistent ALT and AST improvement, but also hepatic fibrosis improvement by APRI and FIB-4 scores, as well as by SWE reading.
- SWE improvement was significantly negatively associated with pre-Rx spleen size > 12 cm, independent to platelet < 120 x 10⁹/L, APRI < 0.5, and FIB-4 <1.45 at Rx wk 24.

DISCLOSURES

- Ke-Qin Hu is on speaker bureau for Gilead Sciences.
- Tung Huynh has nothing to disclose.