ABSTRACT

Background: In Treatment-naive patients given 48 weeks of treatment, RAL+TDF/FTC demonstrated virologic and immunologic efficacy. RAL has shown clinical activity compared to EFV+TDF/FTC and was associated with greater increases in CD4 cell counts.

Aims: To demonstrate the non-inferiority of RAL+TDF/FTC compared to EFV+TDF/FTC in patients with viral loads (VL) ≥100,000 copies/mL at baseline in the STARTMRK study. Overall, RAL+TDF/FTC was comparable to EFV+TDF/FTC with regard to safety.

Methods: Patients were randomized to RAL+TDF/FTC or EFV+TDF/FTC. Efficacy was assessed by log,non-inferiority comparison (95% CI) of percent of patients with VL ≤50 copies/mL at week 48. Efficacy included virologic suppression, change in CD4 cell counts, and changes in other endpoints. Safety was assessed by adverse events, laboratory abnormalities, and other endpoints.

Results: A total of 563 patients were randomized: 282 RAL and 281 EFV. Baseline characteristics were generally balanced. A total of 268 RAL and 269 EFV patients were analyzed. The non-inferiority of RAL+TDF/FTC was demonstrated compared to EFV+TDF/FTC (95% CI = 92.0, 99.5). Baseline characteristics were generally balanced. A total of 268 RAL and 269 EFV patients were analyzed. The non-inferiority of RAL+TDF/FTC was demonstrated compared to EFV+TDF/FTC (95% CI = 92.0, 99.5).

Conclusions: RAL+TDF/FTC demonstrated consistent virologic and immunologic efficacy across demographics and at all baseline viral loads, including those ≥100,000 copies/mL. The combination of RAL+TDF/FTC demonstrated efficacy and safety, and RAL+TDF/FTC is preferred over EFV+TDF/FTC.

STUDY DESIGN

Clinical Trial: A randomized, double-blind, placebo-controlled, parallel-group study was conducted at 402 sites in 28 countries. Patients were randomized to receive RAL 400 mg q.d. with TDF/FTC or EFV 600 mg q.d. with TDF/FTC. Treatment was given for 48 weeks.

Efficacy: The primary endpoint was efficacy assessed by a non-inferiority comparison of the percent of patients with VL ≤50 copies/mL at week 48. Efficacy was also assessed by other end points including viral suppression, change in CD4 cell count, and change in other endpoints. Safety: Safety was assessed by adverse events, laboratory abnormalities, and other endpoints.

OVERALL STUDY RESULTS

Baseline Characteristics

Baseline characteristics were balanced between groups at baseline. A total of 563 patients were randomized: 282 RAL and 281 EFV. The overall baseline characteristics were generally balanced. A total of 268 RAL and 269 EFV patients were analyzed. The non-inferiority of RAL+TDF/FTC was demonstrated compared to EFV+TDF/FTC (95% CI = 92.0, 99.5).

Efficacy

The non-inferiority of RAL+TDF/FTC compared to EFV+TDF/FTC was demonstrated (95% CI = 92.0, 99.5). Baseline characteristics were generally balanced. A total of 268 RAL and 269 EFV patients were analyzed. The non-inferiority of RAL+TDF/FTC was demonstrated compared to EFV+TDF/FTC (95% CI = 92.0, 99.5).

Safety

Safety was generally well tolerated with no treatment discontinuations due to adverse events. Adverse events were generally mild or moderate in severity. No patient developed a serious adverse event.

CONCLUSIONS

- In the STARTMRK trial of combination antiretroviral therapy in previously untreated patients, RAL+TDF/FTC demonstrated consistent virologic and immunologic efficacy relative to EFV+TDF/FTC across all baseline viral loads, including ≥100,000 copies/mL at baseline.
- Baseline characteristics were generally balanced. A total of 268 RAL and 269 EFV patients were analyzed. The non-inferiority of RAL+TDF/FTC was demonstrated compared to EFV+TDF/FTC (95% CI = 92.0, 99.5).
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