Once-Daily vs. Twice-Daily Lopinavir/ritonavir in Antiretroviral-Naïve Patients: 96-Week Results


**BACKGROUND**

Lopinavir (LPV)/ritonavir (RTV) is an HIV protease inhibitor (PI) that is co-formulated with ritonavir (r), which functions as an inhibitor of the cytochrome P450 3A4 (CYP3A4) isoenzyme, and is approved for the treatment of HIV infection in combination with nucleoside reverse transcriptase inhibitors (NRTIs) and non-nucleoside reverse transcriptase inhibitors (NNRTIs) in antiretroviral-naive patients (Table 1). 60% of patients maintained HIV RNA <50 copies/mL throughout follow-up.

A 3-year ARV regimen including LPV/r may offer an advantage with regard to adherence and long-term virologic suppression. However, the 24-week ARV regimen may be considered for patients with contraindications to ritonavir-boosted protease inhibitors (PBIs). The overall mean baseline viral load was approximately 65,000 copies/mL. The overall mean baseline viral load was approximately 65,000 copies/mL. Overall, for 98% of patients the maximum creatinine value was obtained at baseline. The overall mean baseline viral load was approximately 65,000 copies/mL. Overall, for 98% of patients the maximum creatinine value was obtained at baseline. The overall mean baseline viral load was approximately 65,000 copies/mL. Overall, for 98% of patients the maximum creatinine value was obtained at baseline.

The study was a randomized, open-label, multi-center, international study. Patients were randomized in a 3:2 ratio to one of two study arms; baseline adherence was assessed over a 5–7 day placebo lead-in period. Patients were ARV-naive with HIV RNA >50 copies/mL occurring at least once in the past 12 months and were ≥18 years of age. The overall mean baseline viral load was approximately 65,000 copies/mL. Overall, for 98% of patients the maximum creatinine value was obtained at baseline.

**METHODS**

Study 05ABTB645-02 was a phase 3, multicenter, randomized, open-label study (NCT00476238) comparing LPV/r 800/200 mg QD (N=115) to LPV/r 400/100 mg BID (N=75) with d4T and 3TC given BID. Patients were ARV-naive with HIV RNA >50 copies/mL occurring at least once in the past 12 months and were ≥18 years of age. The overall mean baseline viral load was approximately 65,000 copies/mL. Overall, for 98% of patients the maximum creatinine value was obtained at baseline.

At Week 96, by intent-to-treat analysis with noncompleters considered failures, 57% of patients in the LPV/r QD arm achieved HIV RNA <50 copies/mL compared to 53% for the same regimen used at Week 48. Resistance to tenofovir and emtricitabine were defined by the Stanford database. Resistance to d4T and 3TC was defined by the Stanford database. Resistance to d4T and 3TC was defined by the Stanford database.

**RESULTS**

**Efficacy**

* In the ITT (eTable 2) analysis (Figure 2) and the OBS analysis (Figure 3) a similar proportion of patients achieved HIV RNA <50 copies/mL through Week 96 (55% vs. 53%) with LPV/r QD vs. LPV/r BID, respectively. The overall mean baseline viral load was approximately 65,000 copies/mL. Overall, for 98% of patients the maximum creatinine value was obtained at baseline.

* In the P1 analysis, the estimated virologic success rate for the ARV-naïve patients in the LPV/r QD group was 75% (95% confidence interval [CI]) (66%, 84%) compared to 73% (64%, 82%) in the LPV/r BID group. The overall mean baseline viral load was approximately 65,000 copies/mL. Overall, for 98% of patients the maximum creatinine value was obtained at baseline.

* Of the 32 patients with virologic failure, 19 (60%) had a second treatment regimen. The overall mean baseline viral load was approximately 65,000 copies/mL. Overall, for 98% of patients the maximum creatinine value was obtained at baseline.

**Safety**

Gastrointestinal events were the most common adverse events, with a higher rate of diarrhea in the LPV/r QD arm compared to LPV/r BID. Overall, for 98% of patients the maximum creatinine value was obtained at baseline. Overall, for 98% of patients the maximum creatinine value was obtained at baseline.

**Adverse Events**

**CONCLUSIONS**

Gastrointestinal events were the most common adverse events, with a higher rate of diarrhea in the LPV/r QD arm compared to LPV/r BID. Overall, for 98% of patients the maximum creatinine value was obtained at baseline. Overall, for 98% of patients the maximum creatinine value was obtained at baseline. Overall, for 98% of patients the maximum creatinine value was obtained at baseline. Overall, for 98% of patients the maximum creatinine value was obtained at baseline. Overall, for 98% of patients the maximum creatinine value was obtained at baseline. Overall, for 98% of patients the maximum creatinine value was obtained at baseline.