TMC114/r in treatment-experienced HIV patients in power 3: 24-week efficacy and safety analysis

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Background: In the POWER 1 and 2 studies (TMC114-C213 and TMC114-C202), the protease inhibitor (PI), TMC114, co-administered with low-dose ritonavir (TMC114/r), provided significantly greater viral load (VL) reduction and CD4 increase than control PIs (CPIs). The efficacy and safety of the recommended dose for treatment-experienced HIV patients, 600/100mg bid, were further investigated in the non-randomized, open-label POWER 3 analysis (TMC114-C215/C208).

Methods: Study inclusion/exclusion criteria were the same as for POWER 1 and 2. Patients in POWER 3 received TMC114/r 600/100mg bid plus an optimized background regimen (NRTIs ± enfuvirtide). Analysis was by intent-to-treat (TLOVR algorithm).

Results: Of the 327 patients enrolled, the efficacy analysis included 246 patients who reached Week 24; the safety analysis included all patients. Baseline characteristics were similar to those of POWER 1 and 2: mean VL was 4.6 log10 copies/mL and median CD4 count was 115 cells/mm3. HIV RNA <50 copies/mL and at least a 1 log10 copies/mL HIV RNA reduction were achieved by 40% and 65% of patients, respectively. Baseline TMC114 fold change in EC50 was the strongest predictor of virologic response. CD4 counts increased by a mean of 80 cells/mm3. The most common adverse events (AEs) were diarrhea (14%), nasopharyngitis (11%) and nausea (10%). Grade 3/4 triglyceride, cholesterol, ALT and AST elevations occurred in 6%, 4%, 2% and 2% of patients, respectively. Most of the AEs leading to discontinuation (in 8 patients [2%]) did not occur in >1 patient. No grade 3/4 AEs (regardless of causality) occurred in >4% of patients. No serious AE occurred in >1% patients. The six deaths (2%) were not treatment-related.

Conclusions: POWER 3 efficacy and safety results confirm and extend those observed in POWER 1 and 2 in a larger population. TMC114/r 600/100mg bid provided patients with substantial VL reduction and CD4 cell increase, and was generally safe and well-tolerated.