Darunavir + RTV versus Lopinavir-RTV in Treatment Experienced

TITAN Trial
**Study Design: TITAN**

- **Background**: Randomized, controlled, open-label, phase 3 trial to compare the efficacy and safety of ritonavir-boosted darunavir versus lopinavir-ritonavir, both with OBR*, in treatment-experienced, lopinavir-naïve patients with HIV infection

- **Inclusion Criteria (n=595)**
  - Adults ≥18 years
  - HIV RNA ≥500 copies/mL
  - Treatment-experienced, lopinavir naïve

- **Treatment Arms**
  - Darunavir 600 mg BID + RTV 100 mg BID + OBR*
  - Lopinavir/ritonavir (400/100 mg) BID + OBR*

**TITAN** = **TMC114/r In Treatment-experienced pAtients Naïve to lopinavir**

*OBR = Optimized background regimen: ≥2 active antiretroviral agents

Darunavir/r versus Lopinavir/r in Treatment-Experienced TITAN: Study Participant ARV Treatment History

Prior Number of Protease Inhibitors

- 31% with 0 prior
- 38% with 1 prior
- 31% with ≥2 prior

Most Frequently Used Prior PIs

- Indinavir: 35
- Nelfinavir: 28
- Saquinavir: 24

Darunavir/r versus Lopinavir/r in Treatment-Experienced TITAN: Result

Week 48: Virologic Response (ITT-TLOVR)

Darunavir/r versus Lopinavir/r in Treatment-Experienced TITAN: Result

Week 48: Virologic Response, by Baseline PI Resistance (ITT-TLOVR)

Darunavir/r versus Lopinavir/r in Treatment-Experienced TITAN: Conclusions

**Interpretation:** “In lopinavir-naïve, treatment-experienced patients, darunavir-ritonavir was non-inferior to lopinavir-ritonavir treatment in terms of our virological endpoint, and should therefore be considered as a treatment option for this population.”

Darunavir/r versus Lopinavir/r in Treatment-Experienced TITAN (Characterization of Virologic Failure): Result

Week 48: Virologic Response, by Baseline Darunavir-Associated RAMs

**Conclusion**: “In treatment-experienced, LPV-naive patients, the overall virologic failure rate in the DRV/r arm was low and was associated with limited resistance development. These findings showed that the use of DRV/r in earlier lines of treatment was less likely to lead to cross-resistance to other protease inhibitors compared with LPV/r.”

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