Raltegravir + Darunavir/r versus TDF-FTC + Darunavir/r

RADAR Trial
# RADAR: Study Design

**Study Design: RADAR**

- **Background**: Randomized, open-label, pilot study to evaluate the efficacy and safety of raltegravir plus boosted darunavir versus tenofovir DF-emtricitabine plus boosted darunavir.

- **Inclusion Criteria (n = 85)**
  - Age ≥18 years
  - Antiretroviral-naïve
  - HIV RNA >5,000 copies/mL
  - CD4 >100 cells/mm³
  - No resistance to TDF, FTC, or DRV
    (resistance to RAL was not tested at baseline)

- **Treatment Arms**
  - Darunavir 800 mg QD + RTV 100 mg QD + Raltegravir 400 mg BID
  - Darunavir 800 mg + RTV 100 mg QD + TDF-FTC QD

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**Darunavir QD + Ritonavir QD + Raltegravir BID**
(n = 42)

**Darunavir QD + Ritonavir QD + TDF-FTC QD**
(n = 43)

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Raltegravir + Darunavir/r versus TDF-FTC + Darunavir/r
RADAR: Result

Week 48: Virologic Response (Intent-to-Treat Analysis)

Virologic Failure: Darunavir/r + RAL (N = 15); Darunavir/r + TDF-FTC (N = 7)

**Radicavo + Darunavir/r versus TDF-FTC + Darunavir/r**

**RADAR: Result**

**Week 48: Bone Mineral Density Results**

![Bar chart showing bone mineral density results](chart.png)

- **Sub-total BMD**
  - **Darunavir/r + Radicavo**: 9.2 g/cm² (Baseline: -7.0 g/cm²)
  - **Darunavir/r + Tenofovir DF-Emtricitabine**: 11.3 g/cm² (Baseline: -6.9 g/cm²)

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Week 48: Change in Plasma Lipids from Baseline

<table>
<thead>
<tr>
<th>Lipid</th>
<th>Darunavir/r + Raltegravir</th>
<th>Darunavir/r + TDF-FTC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Cholesterol</td>
<td>23.3</td>
<td>21.2</td>
</tr>
<tr>
<td>LDL</td>
<td>6.5</td>
<td>-38.1</td>
</tr>
<tr>
<td>HDL</td>
<td>3.3</td>
<td>7.2</td>
</tr>
</tbody>
</table>

**Conclusion:** “The NRTI-sparing regimen raltegravir + darunavir/ritonavir did not achieve similar week 48 virologic efficacy compared with tenofovir/emtricitabine plus darunavir/ritonavir, but was better with regard to markers of bone health.”
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