**Effect of Natalizumab on Disability Progression**

- Natalizumab reduced the risk of disability progression sustained for 12-24 weeks by 85% and 86% over 2 years compared to the comparator. However, this effect did not reach statistical significance.
- At 2 years, the cumulative probability of disability progression sustained for 24 weeks was 10.5% in the natalizumab group and 51.3% in the comparator group (HR = 0.31; 95% CI: 0.16, 0.62; P = .008).
- At 2 years, the cumulative probability of disability progression sustained for 24 weeks was 5.0% in the natalizumab group and 36.7% in the comparator group (HR = 0.14; 95% CI: 0.06, 0.29; P < .001).

**Effect of Natalizumab on MRI Outcomes**

- Natalizumab significantly reduced the mean number of new or enlarging T2 lesions by 76% relative to comparator (HR = 0.24; 95% CI: 0.08, 0.70, P = .009) (Figure 2).
- The 2-year cumulative probability of relapse was 16.9% in the natalizumab group and sustained for 12 weeks was 16.9% in the natalizumab group and 85% reduction of relapse rate (P < .001).
- Natalizumab significantly reduced the mean number of new or enlarging T2 lesions by 76% relative to comparator (HR = 0.24; 95% CI: 0.08, 0.70, P = .009) (Figure 2).
- The 2-year cumulative probability of relapse was 16.9% in the natalizumab group and sustained for 12 weeks was 16.9% in the natalizumab group and 85% reduction of relapse rate (P < .001).

**TABLE 1. Demographic and Baseline Disease Characteristics of Hispanic Patients in AFFIRM and SENTINEL**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Comparator</th>
<th>Natalizumab</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, mean ± SD</td>
<td>34.7 ± 5.3</td>
<td>34.3 ± 5.3</td>
<td>.777</td>
</tr>
<tr>
<td>Female, n (%)</td>
<td>15 (15)</td>
<td>16 (16)</td>
<td>.500</td>
</tr>
<tr>
<td>Annualized Relapse Rate*</td>
<td>0.70 ± 0.7</td>
<td>0.50 ± 0.5</td>
<td>.224</td>
</tr>
<tr>
<td>Change in T1 Lesion Volume</td>
<td>0.57 ± 1.65</td>
<td>0.80 ± 1.6</td>
<td>.292</td>
</tr>
<tr>
<td>Change in T2 Lesion Volume</td>
<td>–0.078 ± 0.7</td>
<td>–0.668 ± 0.6</td>
<td>.080</td>
</tr>
</tbody>
</table>

**TABLE 2. MRI Outcomes at Year 2**

<table>
<thead>
<tr>
<th>MRI Parameter</th>
<th>Comparator Mean ± SD</th>
<th>Natalizumab Mean ± SD</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>T2 lesions, n (%)</td>
<td>20 (20)</td>
<td>15 (15)</td>
<td>.224</td>
</tr>
<tr>
<td>T1 lesions, n (%)</td>
<td>11 (11)</td>
<td>8 (8)</td>
<td>.138</td>
</tr>
<tr>
<td>Enhancing T2 lesions, n</td>
<td>200 (200)</td>
<td>150 (150)</td>
<td>.292</td>
</tr>
<tr>
<td>Enhancing T1 lesions, n</td>
<td>110 (110)</td>
<td>80 (80)</td>
<td>.138</td>
</tr>
</tbody>
</table>

**METHODS**

- **Patients**
  - Inclusion criteria for AFFIRM and SENTINEL have been published previously.
  - Patients included in this analysis indicated “Hispanic” as their ethnic origin at screening.

- **Study Design**
  - AFFIRM and SENTINEL were randomized, double-blind, placebo-controlled, phase 3 clinical studies.
  - In AFFIRM, patients received natalizumab 300 mg or placebo (2:1) by intravenous (IV) infusion once every 4 weeks for up to 116 weeks.
  - In SENTINEL, patients received natalizumab 300 mg IV or placebo once every 4 weeks added to intravenous (IV) IFN β1a 30μg once every 1.5 weeks (1:1) for up to 116 weeks.

- **Relapses**
  - Defined as new or recurrent neurologic symptoms not associated with fever or infection that lasted ≥ 24 hours and were accompanied by new neurologic signs found on the neurologic examination.

- **Progression of disability**
  - Defined as an increase of ≥ 1.0 point on the Expanded Disability Status Scale (EDSS) score from a baseline score of ≤ 1.0 or an increase of ≥ 1.5 points in the EDSS score from a baseline score of 0 (progression could not be confirmed during disease remission).

- **Confluent, 3-mm-thick axial slices through whole brain were acquired.**

- **Mortality analysis was performed by experienced raters unaware of treatment assignment.**

**CONCLUSIONS**

- **Hispanic patients with relapsing MS treated with natalizumab in AFFIRM and SENTINEL experienced significant reductions in relapses and MRI lesion activity relative to patients who received comparator.**
- **The efficacy of natalizumab on relapses and MRI outcomes in Hispanic patients was similar to its efficacy in the overall study populations of AFFIRM and SENTINEL**.
- **The finding that natalizumab reduced the proportion of patients experiencing sustained progression of disability over 2 years is consistent with the relapse outcome. Although statistical significance was not reached, patient numbers were small.**

**Disclosures**

- No disclosures.