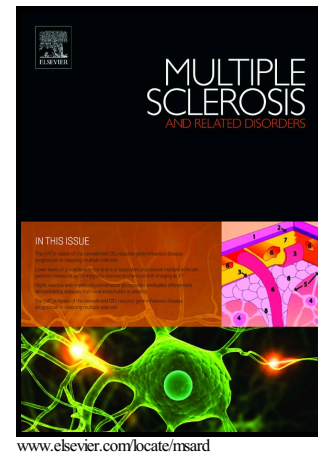


Reduction of PK11195 uptake observed in Multiple Sclerosis Lesions after Natalizumab Initiation

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## Reduction of PK11195 uptake observed in Multiple Sclerosis Lesions after Natalizumab Initiation

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### **Abstract:**

#### **Objective:**

The objective of this study is to longitudinally analyze the uptake of [<sup>11</sup>C]PK11195-PET in multiple sclerosis patients after 3 and 6 months of natalizumab treatment.

#### **Methods:**

Eighteen MS patients, starting treatment with monoclonal anti-VLA-4, were enrolled in a longitudinal PK-PET study. PK uptake was quantified by volume of distribution (VT) calculation using image-derived input function at baseline, 3 and 6 months. Pharmacokinetic quantification was done using a segmented MRI, and selected areas included white matter, gadolinium enhancing lesions, non-enhancing lesions, cortical grey matter and thalamus. VTs of lesions were calculated in reference to each patient's white matter (VT ratio = VT<sub>r</sub>), to consider physiologic variability.

#### **Results:**

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