Is it Alzheimer's disease or another dementia? Marker may give more accurate diagnosis

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New research finds a marker used to detect plaque in the brain may help doctors make a more accurate diagnosis between two common types of dementia – Alzheimer's disease and frontotemporal lobar degeneration (FTLD). The study is published in the November 30, 2011, online issue of *Neurology*, the medical journal of the American Academy of Neurology.

"These two types of dementia share similar symptoms, so telling the two apart while a person is living is a real challenge, but important so doctors can determine the best form of treatment," said study author Gil D. Rabinovici, MD, of the University of California San Francisco Memory and Aging Center and a member of the American Academy of Neurology.

For the study, 107 people with early onset Alzheimer's disease or FTLD underwent a brain PET scan using a PIB marker, which detects amyloid or plaque in the brain that is the hallmark of Alzheimer's disease but not related to FTLD. The participants underwent another PET scan using a FDG marker, which detects changes in the brain's metabolism and is currently used to help differentiate between the two types of dementia.

The study found the PIB PET scan performed at least as well as the FDG PET scan in differentiating between Alzheimer's disease and FTLD, but had higher sensitivity and better accuracy and precision with its

qualitative readings. The study found PIB had a sensitivity of 89.5 percent compared to 77.5 percent for FDG.

"While widespread use of PIB PET scans isn't available at this time, similar amyloid markers are being developed for clinical use, and these findings support a role for amyloid imaging in correctly diagnosing Alzheimer's disease versus FTLD," said Rabinovici.

Provided by American Academy of Neurology