A simple balance test may predict cognitive decline in Alzheimer's disease

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A simple balance test may predict cognitive decline in Alzheimer's Disease, according to a study published in the March 2009 issue of the *Journal of Alzheimer's Disease*.

This study was carried out in 16 university hospital departments of neurology, geriatrics or psychiatry in ten cities with 686 outpatients suffering from AD. This population is representative of the AD population seen by clinicians in daily practice. Patients were evaluated by a geriatrician every six months for up to two years, and their degree of cognitive impairment was measured using the Mini Mental State Examination (MMSE). At the same time, a "one-leg balance" (OLB) test was given, where a participant was asked to stand on one leg for as long as possible. The OLB test was reported as abnormal when the participant was unable to stand on one leg for 5 seconds or more.

Participants with an abnormal OLB at baseline or/and during the follow-up showed significantly more cognitive decline at 12, 18 and 24 months than the participants with a OLB test normal at baseline and normal during the follow-up. The worst condition (having an abnormal OLB at baseline and during the follow-up= no improvement) was associated with a mean adjusted cognitive decline of 9.2 points. The best condition (having a normal OLB at baseline and during the follow-up = no worsening) was associated with a mean adjusted cognitive decline of 3.8 points.

Senior Investigator Yves Rolland, Inserm and the University of

Toulouse, France, states, "Our results suggested that an abnormal OLB is a marker of more advanced dementia (worst baseline characteristic) and an independent predictor of cognitive decline in AD. Our results reinforce in an AD population, the growing evidence suggesting a link between physical performances and cognitive decline. If these results are confirmed by other data, the OLB test could be adopted in clinical practice to identify AD patients at high risk of rapid cognitive decline."

More information: The article is "An Abnormal 'One-leg Balance' Test Predicts Cognitive Decline During Alzheimer's Disease" by Yves Rolland, Gabor Abellan van Kan, Fati Nourhashemi, Sandrine Andrieu, Christelle Cantet, Sophie Guyonnet-Gillette and Bruno Vellas It is published in the *Journal of Alzheimer's Disease* 16:3 (March 2009).

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