
DaTSCAN™ SPECT Imaging Shows Impact on the Diagnosis of Patients with Dementia



GE Healthcare has presented the results of a randomised study analysing the effect of DaTSCAN™ (Ioflupane I 123 Injection) SPECT imaging in a group of adult patients with a diagnosis of possible dementia with Lewy bodies (DLB). The findings, presented at the 2013 American Academy of Neurology Meeting, reported use of DaTSCAN imaging significantly contributed to a change in diagnostic category and improved physician confidence in diagnosing these patients.

“A clinical diagnosis of DLB can be particularly challenging, and this study reported that the use of DaTSCAN SPECT imaging in patients with possible DLB resulted in more changes from baseline diagnosis than in patients evaluated based only on clinical examination and routine investigations,” said Zuzana Walker, MD Reader in Psychiatry of the Elderly, UCL Mental Health Sciences Unit, University College of London, and lead author of the study. “In addition, in this study, physicians who had access to DaTSCAN imaging for their patients reported greater confidence in their diagnoses, which may enable them to make more appropriate treatment decisions and provide better support and advice to their patients.”

This multicentre, randomised, open-label, comparative clinical trial evaluated the impact of DaTSCAN SPECT imaging on diagnosis and on the diagnostic confidence of clinicians in patients diagnosed with possible DLB who underwent DaTSCAN imaging (N=114) with those in the control group who did not (N=56). The proportion of patients with changes in clinical diagnosis and changes in confidence in diagnosis from baseline was compared between the two groups at 8 and 24 weeks from baseline.

Results showed that significantly more patients in the DaTSCAN imaging group had a change in diagnostic category compared to patients in the control group after 8 weeks (61% versus 4%, $P < .0001$) and after 24 weeks (69% versus 16%, $P < .0001$). Additionally, physicians with access to DaTSCAN imaging for their patients reported significantly more confidence in their diagnoses at 8 and 24 weeks of follow-up ($p < 0.0001$) compared with physicians of control patients. Clinicians reported that they were more likely to change the diagnostic category if the DaTSCAN image was abnormal (82%) than if the result was normal (48%).

Dementia with Lewy bodies (DLB) is one of the most common types of progressive dementia, and is a common form of dementia in old age, accounting for nearly 15-20 percent of cases. The central feature of DLB is progressive cognitive decline, combined with three additional defining features: (1) pronounced “fluctuations” in alertness and attention, such as frequent drowsiness, lethargy, lengthy periods of time spent staring into space, or disorganized speech; (2) recurrent visual hallucinations, and (3) parkinsonian motor symptoms, such as rigidity and the loss of spontaneous movement.

Reference: Walker Z, et al. A multicenter, randomized, open-label, comparative phase 4 trial to assess changes in dementia diagnostic category and diagnostic confidence after DaTSCAN imaging in subjects with an uncertain diagnosis of dementia with Lewy bodies (possible DLB). Poster presented at 2013 American Academy of Neurology Meeting.

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