



Title	Efficacy of 123i-ioflupane (DaTSCAN[®]) on the Diagnosis of Parkinsonism Syndromes. Systematic Review and Case Registry
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Aim

To assess the efficacy of DaTSCAN[®] in diagnosing early Parkinson's disease (PD) and determine the efficacy of 123I-FP in the differential diagnosis of vascular parkinsonism, drug-induced parkinsonism, essential tremor, dementia with Lewy bodies (DLB), and Alzheimer's disease (AD).

Conclusions and results

The scientific evidence available indicates that 123I-FP can be useful to differentiate PD from nondegenerative disorders, eg, vascular and drug-induced parkinsonism, differentiate PD from Alzheimer's disease, and AD from DLB. The case registry showed that ioflupano was more useful in diagnosing patients without response to L-dopa or with postural tremor. 123I-FP could not be indicated correctly in some patients. In this registry, a change in the diagnosis was observed in 33% patients and a change in therapy in 51% at 1-year follow-up.

Recommendations

DaTSCAN[®] seems to show a greater clinical utility when it is used in patients with suspicious early PD, especially when symptoms have started in the previous 1 to 2 years, but it is not useful in patients with advanced PD and responsiveness to L-DOPA.

Methods

We used the following databases to systematically search the literature: Cochrane Library Plus, NHS Centre for Reviews and Dissemination that included the HTA (Health Technology Assessment), DARE (Database of Reviews of Effectiveness) and NHS EED (Economic Evaluation Database), MEDLINE (PubMed), EMBASE (Silver Platter), ISI Web of Knowledge, Tripdatabase, and Clinicaltrials.gov. Nine articles were included in the systematic review (5 cohort studies and 6 cross-over clinical trials). A case registry was performed in collaboration with 4 Galician hospitals. We used statistical software (SPSS 12.0) to analyze the information.

Further research/reviews required

High-quality studies are necessary to assess the diagnostic efficacy of DaTSCAN[®] to differentiate between movement disorders.