Scherfler et al. present an extensive overview on the role of DAT imaging general justified. We would like to make a few remarks: We have recently finished a retrospective study on 248 patients who underwent SPECT imaging in a diagnostic work-up for parkinsonism. Of the 112 patients ultimately diagnosed with IPD, 22 had an initial normal DAT scan. A number of these were rescanned after a certain period and then an additional eight patients did have abnormal DAT scans. This observation accords with a recent meta-analysis we did, in which we found that a normal DAT scan in patients with a clinically undefined parkinsonism, does not rule out IPD.

References

Role of DAT-SPECT in Diagnostic Work-Up of Parkinsonism

Scherfler et al. present an extensive overview on the role of DAT-SPECT scan in the diagnostic work-up of patients with parkinsonism. We are impressed with the amount of work done and we feel that their conclusions and recommendations are in general justified. We would like to make a few remarks:

1. The authors state that “it is improbable that DAT imaging would be normal in initial early disease” and that “patients with normal striatal DAT availability are highly likely to suffer from diseases not affecting the nigrostriatal pathways.” This suggests that a normal DAT scan could exclude idiopathic Parkinson’s disease (IPD) in a patient with parkinsonian signs and symptoms.

We have recently finished a retrospective study on 248 patients that were normal on initial DAT scans. Of the 112 patients ultimately diagnosed with IPD, 22 had an initial normal DAT scan. A number of these were rescanned after a certain period and then an additional eight patients did have abnormal DAT scans. This observation accords with a recent meta-analysis we did, in which we found that a normal DAT scan in patients with a clinically undefined parkinsonism, does not rule out IPD.

2. The authors suggest that combining [123I]FP-CIT with postsynaptic imaging using [123I]iodobenzamide (IBZM) can support the diagnosis of progressive supranuclear palsy. In our series, we also looked into this and found that this combination, although used in routine practice, is of little use in diagnostically delineating IPD from the atypical parkinsonism syndromes. Our literature analysis yielded similar results.

3. The authors conclude that DAT-SPECT can provide valuable additional information in patients with inconclusive parkinsonian symptoms, particularly early in the disease. This is exactly the point, as this is the situation in which the neurologist needs an additional diagnostic tool above the neurological examination. The problem however is that most diagnostic SPECT studies have not been done in this clinical setting: most involve later-stage clearly-defined patients that are obviously not representative for this clinical question. In our literature analysis, we found only 32 clinically relevant papers on a total of 185.

References

Reply: Role of DAT SPECT in the Diagnostic Work-Up of Parkinsonism

Reply from the authors: We thank Dr. Weber for his comments. We would certainly be interested in his findings of patients with a clinical diagnosis of parkinsonism exhibiting a normal DAT SPECT at baseline who later on developed abnormal scans. Unfortunately the article he cites is still in press and currently not accessible. As of now no published report exists describing DAT SPECT at baseline who later on developed abnormal scans. Fortunately the article he cites is still in press and currently not accessible. As of now no published report exists describing patients—commonly turned SWEDDS—over the time of follow up developing abnormal DAT binding on SPECT. Therefore our statement about a normal DAT SPECT making a diagnosis of degenerative Parkinsonism unlikely is an accurate reflection of the state of knowledge at the time of publication of our article. If the pending publication by Dr. Weber and colleagues will provide strong data to challenge this view remains to be seen.

We agree with Dr. Weber that IBZM SPECT can be within normal limits in PSP, thereby adding little diagnostic information and we have stated this in the very sentence of our article to which Dr. Weber is referring in his comment.

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