



# LEVODOPA RESPONSIVE PARKINSONISM WITH ABNORMAL BRAIN DATSCAN SPECT IN DOWN'S SYNDROME : A CASE REPORT

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## INTRODUCTION

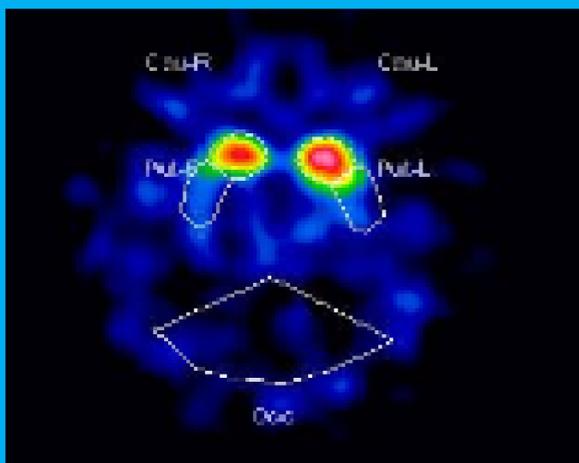
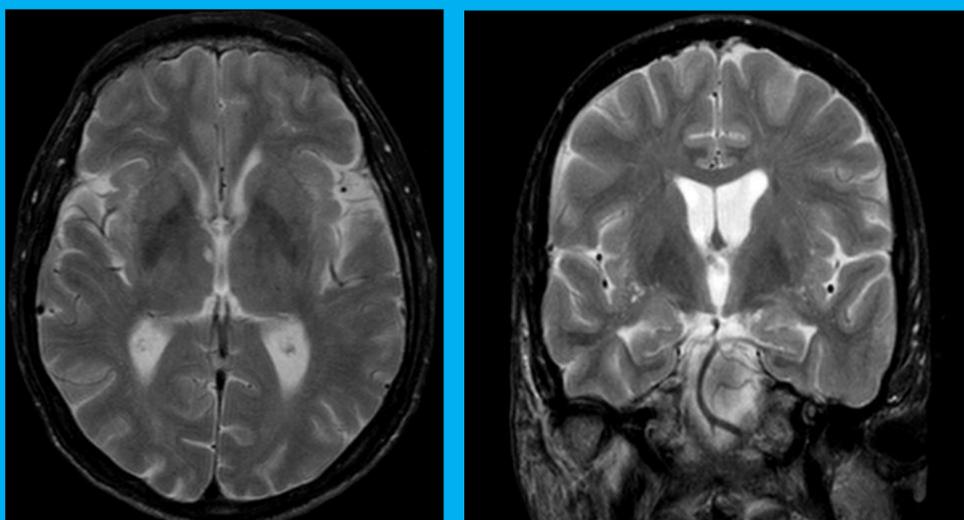
Adult patients affected by Down's syndrome (DS) are at higher risk of developing Alzheimer-type dementia and epilepsy, while parkinsonian symptoms are not common, although occasionally basal ganglia calcification are sometimes observed.

## OBJECTIVE

To report on a case of DS associated with parkinsonian symptoms responsive to levodopa.

## MATERIALS AND METHODS

A 52 year-old man affected by DS presented with a history of one year of significant resting tremor, more evident to the right arm, associated with hypomimia, bilateral bradykinesia, bradyphrenia. Mild postural tremor was also associated, together with a dysmorphism of the hands with the distal phalanges in flexion.



## RESULTS

Brain MRI showed only a bilateral pallidal hypointensity on FLAIR weighted images, while brain SPECT with DATSCAN showed a marked bilateral reduction of dopamine transporter (DAT ) at striatal level, more prominent in the putamina. Treatment with levodopa/benserazide was started (400/100 mg daily) with good response and significant motor improvement.

## DISCUSSION AND CONCLUSIONS

To the best of our knowledge, this is one of the only cases of a DS patient presenting with levodopa responsive parkinsonism and a marked bilateral reduction of DAT at striatal level on a brain SPECT. Previous neurochemical investigations have showed as the dopamine concentration in the striatum is decreased in some of the older and demented patients affected by DS. Taking note of incontrovertible levodopa response of our patient affected by DS, without underestimating the clinical signs of Alzheimer-type dementia , we retain that parkinsonism must be sought in DS patients, also with the purpose of evaluating a possible levodopa response.

## REFERENCES

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