The Journal of International Medical Sciences Academy
2018 ; (January – March); Vol 31; No. 1

CASE REPORT

'Humming Bird Sign', 'Mickey Mouse Sign', and 'Morning Glory Sign' in progressive supranuclear palsy.

A Case Report with review of literature.

Mounika V., S. Reddy, B. Mallikarjunappa

Department of Radio-diagnosis, PESIMSR, Kuppam, Andhra Pradesh, India

Abstract

Progressive nuclear palsy is aform of neurodegenerative disorder,often named as Steele–Richardson–Olszewski syndrome. We report a case of dysarthrea.gaitdisturbances,multiple gaze palsies with classical Mri signs like 'Humming bird sign', the 'Mickey mouse sign', and the 'Morning glory sign'.

Keywords: Humming bird sign, Mickey Mouse sign, midbrain atrophy, Morning glory sign, Penguin sign, progressive supranuclear palsy, Steele–Richardson–Olszewski syndrome

Introduction

Progressive supranuclear palsy (PSP) is also known as Steele–Richardson–Olszewski syndrome, it's a form of neurodegenerative disorger. We present as case with classical signs of PSP.

Case Report

52 year old female patient was referred to our dept for MRI BRAIN with the complaints of dysarthria, gait disturbances and multiple gaze palsies. MRI showed classical signs like the 'Humming bird sign', the 'Mickey mouse sign', and the 'Morning glory sign'.

Discussion

The prevalence of PSP is 5 to 10 % in 1,00,000 population with a mean age of presentation around 6th to 7th decade of life. The Humming bird sign [1,2] (aka penguin sign), Mickey Mouse sign [2,3] (Morning glory sign) are the classical signs of PSP. Parkinson's disease, multisystem atrophy, corticobasal ganglionic degeneration and dementia will also have morning glory sign but the classical mid brain atrophy will spare or predominantly effect mid brain, ratio of mid brain to pons area, poor responde to dopameninergic agents and cerebral peduncle with or without cortical atrophy [4].

However, the clinical features should be correlated with radiological findings [5].

Address for correspondence
Dr. B. Mallikarjunappa, Professor, Department of Radio-diagnosis, PESIMSR, Kuppam- 517425, Andhra Pradesh, India
Email: drmallikarjunappa@gmail.com

Received: 14.08.18
Accepted: 14.03.19

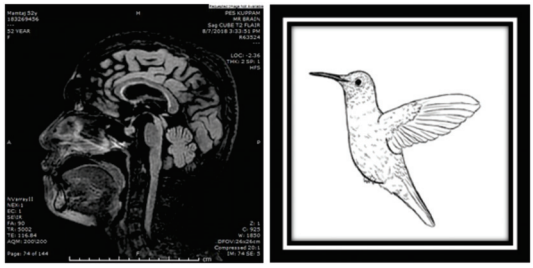

Fig. 1: Mid sagittal FLAIR MRI of the brain showing midbrain tegmental atrophy without pontine atrophy giving the impression of head and body of a humming bird.

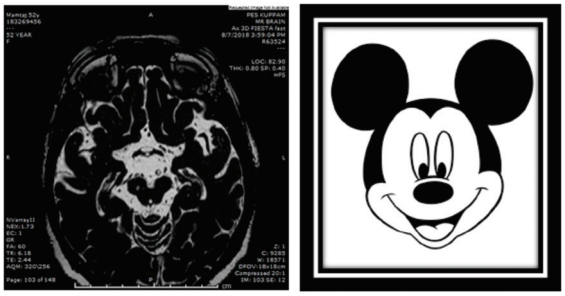

Fig. 2: Axial FIESTA of the brain showing selective atrophy of the midbrain tegmentum with relative preservation of tectum and cerebral peduncles resembling the head of Mickey Mouse

Fig 3 : Axial FIESTA of the brain showing increased lateral concavity of the midbrain tegmentum resembling morning glory. Red arrow in the pictorial representation explains the lateral concavity.

The treatment for PSP is purely symptomatic.

Conclusion

Occulomotor signs with a tendency to fall are the current criteria as per the national institute of neurological disorderes and stroke and society for progressive supranuclear palsy. FP-CIT-SPECT and IBZM-SPECT will help in the narrowing the differential diagnosis.

We are greatful and thankful to Dr. Roopa Suresh and Dr. Suresh Krishnamoorthy AMD and MD of PESIMSR. Dr. Krishna Rao, principal and Dr. Venugopal medical superintendent and Dr.Ramesh Kumar Prof & HOD(RD) for their continued support in academics

Conflict of interest:	All authors declare no COI
Ethics:	There is no ethical violation as it is based on voluntary anonymous interviews
Funding:	No external funding
Guarantor:	Dr. B. Mallikarjunappa will act as guarantor of this article on behalf of all co-authors.

References

1) Pandey S. Hummingbird sign in progressive supranuclear palsy disease. J Res Med Sci 2012; 17:197–198.
2) Kato N, Arai K, Hattori T. Study of rostral midbrain atrophy in progressive supranuclear palsy. J NeurolSci 2003;210:57–60.
3) Shukla R, Sinha M, Kumar R et al. 'Hummingbird' sign in progressive supranuclear palsy. Ann Indian Acad Neurol 2009;12:133
4) Slowinski J, Imamura A, Uitti RJ et al. MR imaging of brainstem atrophy in progressive supranuclear palsy. J Neurol 2008;255:37–44.
5) Berg D, Steinberger JD, Warren OC *et al*. Milestones in magnetic resonance imaging and transcranialsonography of movement disorders. Mov Disord 2011;26:979–92.