Hypermetabolism of basal ganglia in chorea associated with antiphospholipid antibodies demonstrated by F-18 FDG

MM Sathekge

MBChB, Department of Nuclear Medicine, MEDUNSA, and also*

A Maes*

V Thijst[†]

M de Roo*

*Department of Nuclear Medicine; †Department of Neurology; Katholike Universiteit Leuven, Belgium

Abstract

A brain FDG PET study was performed on a 21-year-old woman with subacute chorea of unknown origin. Associated with her chorea, she had abnormal levels of antiphospholipid antibodies. She had none of the classical features of SLE nor primary antiphospholipid syndrome. The images showed high F-18 FDG uptake in the basal

ganglia, while the brain MRI and EEG were normal. An association between chorea and antiphospholipid antibodies had been demonstrated before, with normal brain CT, MRI, 123IMP-SPECT and cerebral angiography. The report suggests the advantage of FDG PET in imaging of unexplained cases of chorea associated with antiphospholipid antibodies.

Bibliography

Brey RL, Gharavi AE, Lockshin MD. Neurological complications of antiphospholipid antibodies. *Rheum Dis Cln North Am* 19 (4): 833, 1993.

Furie R, Ishikawa T, Dhawan V, Eidelberg D. Alternating hemichorea in primary antiphospholipid syndrome: Evidence for contralateral striatal hypermetabolism, *Neurology* 4: 2199, 1994.

Hirsh J, Piovella F, Pini M. Congenital antithrombin III deficiency: laboratory diagnosis, incidence and clinical features. *Am J Med* 87 (Suppl 3B): 34S, 1989.

Lee M-K, Ng S-C. Cerebral venous thrombosis associated with antithrombin III deficiency. *Aust NZ J Med* **21**: 772, 1991.

Shimomura T, Takahashi S. Chorea associated with antiphospholipid antibodies. *Rinsho-Shinkeigaku* **32(9)**: 989, 1992.

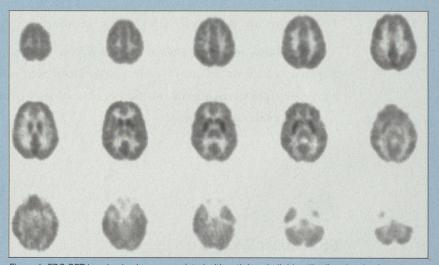


Figure 1: FDG PET imaging in chorea associated with antiphospholipid antibodies showing hypermetabolism in the basal ganglia.