Ocular motility and Wilson’s disease: A study on 34 patients

I Ingster-Moati 1*, E Bui Quoc 2, M Pless 3, R Djomby 4, C Orssaud 2, J P Guichard 5 and F Woimant 6

Background:

Wilson’s disease is an autosomal recessive genetic disorder resulting from an abnormality of copper metabolism. The excessive accumulation of copper in the brain induces an extrapyramidal syndrome. Oculomotor abnormalities occur in most extrapyramidal disorders but have rarely been studied in Wilson’s disease.

Objective:

To evaluate ocular motility manifestations of Wilson’s disease.

Methods: A prospective study of 34 patients affected by Wilson’s disease who were recruited and whose ocular motility was recorded by electro-oculography (EOG).

Results:

Vertical smooth pursuit was abnormal in 29 patients (85%). Vertical opto-kinetic nystagmus and horizontal smooth pursuit were impaired in 14 patients (41%). No MRI abnormality was found in the lenticular nuclei of 7 patients who manifested ocular motility abnormalities.

Conclusion:

Vertical eye movements, in particular vertical pursuits (85.3%), are impaired in Wilson’s disease, more often than vertical optokinetic nystagmus (38.2%) and vertical saccades (29.4%). EOG abnormalities can be found in patients who do not yet exhibit anatomical lesion by MRI.