

## **Ocular motility and Wilson's disease: A study on 34 patients**

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### **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 extra-pyramidal syndrome. Oculomotor abnormalities occur in most extra-pyramidal 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.