Aim: Epilepsy is more common in patients with multiple sclerosis (MS) than in general population, occurring in 2 to 3% of patients. To report twins with MS and epilepsy. Methods: Case reports, Department of Neurology, Department for demyelinating diseases and Epilepsy unit.

Results: First patient is 27 years old woman with neurological finding, poor visual acuity, spastic quadriparesis and cognitive impairment. The first time she was admitted to the Department on September 2007. Diagnosis of MS was made based on MR brain imaging showing typical periventricular white matter changes but CSF oligoclonal bands were absent. Visual evoked potentials have been reported to be abnormal. During his stay at the Clinic, she developed secondary generalized tonic-clonic seizures, on first year of diseases (“late-onset”). Interictal EEG showed generalized slow wave activity with focal specific epileptiform changes of the right temporal lobe. Patients displaying seizure activity were treated with lamotrigin. After application of antiepileptic drugs in the treatment, there were no recurrent seizures, but the EEG findings were positive.

Second patient was monozygotic twin. She had epileptic seizures at first (“early-onset”), focal with secondary generalised tonic-clonic. She admitted to the Department on December 2009. Interictal EEG showed generalised slow wave activity, during 3 sec. with focal specific changes on the right temporal lobe. She showed satisfying therapeutic responses to lamotrigin. MR of the brain showed typical multiphocal supratentorial lesion of the white matter and periventricular white matter plaques. She had left eye amblyopia, right hemiparesis and right hemisensitive syndrome. CSF oligoclonal bands were absent.

Conclusion: Familiar disorder characterised by MS and epilepsy remains uncertain.