

## Ocular Manifestations in Patients with Multiple Sclerosis

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**Introduction.** Multiple sclerosis (MS) is considered to be the most common demyelinating autoimmune disease of central nervous system in young people. Worldwide MS has affected more than 2 million mostly young, working-age people and its prevalence varies from 70 to 200 per 100,000 population [National Multiple Sclerosis Society, 2011]. In Latvia the prevalence has reached 62,7 per 100,000 population [Metra et al., 2008]. Initial symptoms of MS depend on anatomical localisation of lesions, most frequently pathological process affects optical nerves, brain stem, cerebellum and spinal cord. The average age at diagnosis is 29 years in women and 31 year in men. In 2000 female-to-male ratio of MS incidence was 2.3 [Kampman, Brustad, 2008]. Optic neuritis can be the first demyelinating event in approximately 20% of patients with MS. Eye symptoms including diplopia on lateral gaze occur in 33% of patients [Roodhooft, 2009].

**The aim.** The aim of the study is to analyse the disturbance of the main eye functions in MS patients as well as in patients with suspected MS.

**Materials and methods.** Medical records of patients diagnosed or suspected of MS from Riga Eastern University Hospital "Gailezers" neurology inpatient department between 1 June 2011 and 31 December 2012 were selected and analysed. 35 patients were included in the study. Data were processed with *SPSS 20.0*.

**Results.** There were 74.3% women (n = 26) and 25.7% men (n = 9). The average age of women was 40.5 ± 11.9 years and 33.3 ± 8.97 years for men. 82.86% (n = 29) patients had been previously diagnosed with MS and in 6 (17.14%) cases diagnosis of MS was newly established during admission. The types of MS were Relapsing-Remitting MS (RRMS) (n = 20) 57.14%, Secondary-Progressive MS (SPMS) (n = 9) 25.71% and MS suspected (n = 6) 17.14%. Ocular symptoms of MS occurred in 62.86% (n = 22) of patients. In patients with suspected MS, ocular symptoms occurred in 50% (n = 3) and in the other 50% (n = 3) of cases both ocular and neurological symptoms were present. The most frequent ophthalmologic manifestation of MS was nystagmus that occurred in 72.7% (n = 16) of cases. Optic nerve subatrophy or atrophy on funduscopy were seen in 50% (n = 11) of cases. Other ocular symptoms were double vision in 40.9% (n = 9) of patients, insufficiency of convergence in 31.81% (n = 7), blurred vision in 18.18% (n = 4), visual field defects in 13.63% (n = 3). In one case uveitis was observed. Baseline MRI was performed in 23 cases (65.7%).

**Conclusion.** Ocular findings in multiple sclerosis were frequent and in one half of the cases it was the initial manifestation of suspected multiple sclerosis.