

Title

Effects of different Myelin Oligodendrocyte Glycoprotein dosage on visual function in the Dark Agouti rat model of Experimental Autoimmune Encephalomyelitis

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Abstract

Dark-Agouti rats were immunized with increasing doses of Myelin Oligodendrocyte Glycoprotein (MOG) to develop Experimental Autoimmune Encephalomyelitis (EAE), a preclinical model of multiple sclerosis (MS). Typical EAE motor impairments were daily assessed and non-invasive Visual Evoked Potentials (VEPs) were recorded at baseline and five weeks after immunization, with final histopathology of optic nerves (ONs).

Immunized rats exhibited a relapsing-remitting clinical course. Both VEP and histological abnormalities were detected in a MOG dose-dependent gradient. Increasing MOG dosage affected visual function in EAE, which could be monitored with VEP recording to assess demyelination and axonal loss along ONs.