



**Low Level Laser Therapy & Parkinson's disease  
clinical research**

**Biochemical and immunological inducers of the blood in Parkinson's disease and their correction with the help of laser therapy**

**Komel'kova LV, Vitreshchak TV, Zhirnova IG, Poleshchuk VV, Stvolinskii SL, Mikhailov VV, Gannushkina IV, Piradov MA.**

**The influence of laser therapy on the course of Parkinson's disease (PD) was studied in 70 patients. This influence appeared adaptogenic both in the group with elevated and low MAO B and Cu/Zn SOD activity. Laser therapy resulted in reduction of neurological deficit, normalization of the activity of MAO B, Cu/Zn-SOD and immune indices. There was a correlation between humoral immunity and activity of the antioxidant enzymes (SOD, catalase). This justifies pathogenetically the use of laser therapy in PD. Bull Exp Biol Med. 2003 May; 135(5):430-2.**

**Laser modification of the blood in vitro and in vivo in patients with Parkinson's disease.**

**Vitreshchak TV, Mikhailov VV, Piradov MA, Poleshchuk VV, Stvolinskii SL, Boldyrev AA. Institute of Neurology of the Russian Academy of Medical Sciences, Moscow.**

**The effect of He-Ne laser radiation on activity of MAO B, Cu/Zn-SOD, Mn-SOD, and catalase in blood cells from patients with Parkinson's disease was studied in vivo and in vitro. The effects of intravenous in vivo irradiation (intravenous laser therapy) were more pronounced than those observed in similar in vitro experiments. It is concluded that generalized effect of laser therapy involves interaction between blood cells.**