Stroke takes a leading place among the diseases of older. Current is to determine the reliable criteria for monitoring the process of rehabilitation of such patients. We examined 40 patients with stroke aged 55 to 75 years. The time from the onset of the stroke ranged from 4 months to 5 years (average 2.5 years). Patients undergone the course of rehabilitation. All patients underwent clinical neurological examination, neuropsychological testing, neurophysiological testing in dynamics, which included the study of evoked potentials of the brain and the parameters of transcranial magnetic stimulation. Upon graduation of the course all patients were evaluated with rehabilitation activities profile scale. All patients had cognitive impairment. We found that the elongated latencies of brainstem auditory potentials and P300 latency were characteristic for patients with moderate cognitive impairment, which had disequilibrium accompanied by high risk of frequent falls. These patients had minimal improvement of motor functions during rehabilitation (p0.05). The improvement of some parameters of the evoked potentials in process of rehabilitation correlated with the improvement of motor functions. According to our results, the evoked potentials of the brain, transcranial magnetic stimulation and the data of neuropsychological testing could be objective indicators for predicting and monitoring the dynamics of motor functions in the rehabilitation of patients with stroke.