

POSTURAL DYSBALANCE IN DIFFERENT TYPES OF DEMENTIA

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Postural imbalance and falls are common in patients with dementia. Aim of our study was to examine the extent of imbalance in demented patients by static stabilography. Twelve patients with vascular dementia (VD), five patients with Alzheimer disease (AD) and eleven elderly took part in measurements. They were asked to stand quietly on the platform under different sensory conditions – eyes open, eyes closed, with moving visual scene and altered proprioceptive input. The proprioceptive input was altered by unilateral vibration of Achilles tendon (AT). Motion of center of foot pressure (COP) was recorded. Amplitude and velocity of COP movements were calculated. There were differences between VD and AD patients. Patients with VD showed significantly larger sway amplitude in eyes open and closed when compared to AD patients and control group. Also, in VD patients, vibration evoked large COP shift, which led to the falling reaction. Falling reactions were not observed in AD patients and control group. No postural response difference was found to visual scene motion between patients' groups. Our results indicate that postural balance is more severely impaired in patients with VD (mainly with impairment of periventricular white matter) than in AD patients. Occurrence of postural imbalance in AD patients suggests extension of disease process on subcortical level.

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