Balance rehabilitation using custom-made Wii Balance Board exercises: clinical effectiveness and maintenance of gains in acquired brain injury population

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ABSTRACT

Balance disorders are a common impairment of some of the pathologies with the highest incidence and prevalence rates. Conventional physical therapy treatment focuses on the rehabilitation of balance skills in order to enhance patients' self-dependency. In the last years, some studies have reported the clinical benefits of virtual reality systems in the balance recovery. The force platform Wii Balance Board has been adopted with rehabilitative purposes by many services due to its low cost and widespread battery of exercises. However, this entertainment system is oriented to healthy people and cannot adapt to the patient's motor (and possible cognitive) deficits. In previous studies we have developed custom-made adaptive exercises that use the Wii Balance Board with promising results in acquired brain injury population. In this contribution, we present some conclusions derived from the past and undergoing clinical studies.

Full papers will be published in the Conference Proceeding s and will be available to delegates at the conference on Sept. 10.

Full papers will be released on-line in the ICDVRAT archive on March 15.