

Test szybkich półobrotów głową (HSN - Head Shaking Test) zastosowany w rozpoznawaniu uszkodzeń narządu przedsionkowego

Head Shaking Test (HSN) using to diagnose vestibule damage

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Summary

Introduction. There is described a transient nystagmus provoked by shaking the head in the horizontal plane for a few seconds in both normal subjects and patients that is called Head Shaking Test (HSN) as a diagnostic tool for vestibular dysfunction. HSN is generally accepted that is generated by an asymmetrical peripheral vestibular input and a central velocity storage mechanism, which integrate and extend the peripheral vestibular signals. Purposes 1. Creation of own modification method of stimulation and registration HSN 2. Estimation of HSN test value to show asymmetrical function of vestibular system 3. Establish possibility of HSN test to localization of damage vestibular system 4. Verification this test to use it as screening test **Material and Methods.** Studied group was consisted of 111 subjects that consist of 68 women and 43 men with mean age 52,4 years. All patients and controls were submitted to audio-logical tests and vestibular examinations According to the results of the otoneurological tests, patients were divided into: 36 with peripheral vestibular disease, 37 with central vestibular disease, 6 with both peripheral and central vestibular disease and 32 control persons. Own modified HSN test was described. Frequency of movements was approximately 2 Hz determined by metronome. HSN was recorded using ENG apparatus produced by Hartmann. **Results.** In the first study stage incidence of HSN-H and HSN-V related to localization of vestibular organ damage, symmetric and asymmetric reaction in tested. It was observed more incidence of HSN-H and HSN-V in patients with peripheral and central lesion of vestibular system than in control group. Estimation of HSN incidence related to kinetic test - acceleration-deceleration rotary test shows the same HSN frequency in compared groups, with symmetric or asymmetric reaction in rotary test. HSN frequency related to caloric test (canal paresis) showed statistic differences between normal and canal paresis reaction in caloric test. Analysis incidence of HSN-V revealed no significant differences between examined groups. In the second studied stage the sensitivity and specificity were examined. **Conclusions.** 1. It is possible to make HSN test using metronome and ENG recording 2. HSN test may be use to reveal asymmetry of vestibular function. 3. HSN is helpful to diagnose peripheral and central lesion to some extent. 4. HSN is not useful as screening test

