

SCREENING MIGRAINOUS HEADACHE PATIENTS WITHOUT VERTIGO COMPLAINS WITH VESTIBULAR BEDSIDE TESTS (P-S-4)

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Introduction: Migraine and vertigo are common disorders, with lifetime prevalence of 16% and 7% respectively; and a co-morbidity around 3.2%. Vestibular syndromes and dizziness occur more frequently in migraine patients (30–50%). However, the issue as how and why vestibular changes do occur in migraine remains highly controversial. Due to the relatively higher prevalence of vestibular disorders in migraineurs, clinical tests specifically designed to detect even subtle vestibular dysfunctions are expected to be abnormal in this condition. A systematic search for bedside clinical signs indicative of vestibular dysfunction in migraineurs has not been performed.

Objective: To compare vestibulo-ocular (VOR) and vestibulo-spinal (VSR) responses as estimated by bedside tests in migraineurs without history of vertigo with controls.

Patients and Methods: In this cross-sectional study sixty individuals, thirty migrainous patients (ICHD 3rd edition); 25 women, 19–62 y-o (median 39.3 years) without vertigo complains and thirty sex and age healthy paired controls were evaluated. Bedside tests were used to assess the VOR and VSR reflexes. For the first, the head impulse test (HIT), head shaking manoeuvre (HSM), dynamic visual acuity test (DVA), and the subjective visual vertical test (SVV) were performed;

and for the second the applied tests were the clinical test of sensory integration and balance (CTSIB), sharpened Romberg test (SRT), Fukuda stepping test (FST), and past pointing test (PPT). All subjects underwent a neurootological examination including the minimal ice test (MIT). The Wilcoxon Signed Rank test and the McNemar chi-square test were used for statistical comparisons. p values <0.05 were considered significant. This study was approved by the local Ethics Committee.

Results: There was a tendency for migraineurs to perform worse in all tests except for the VVS test, but head to head comparisons showed that only the SRT was statistically different between patients and controls ($p = 0,039$), (TABLE). Taken together, considering the frequency of abnormal responses, patients performed significantly worse than controls ($p = 0.003$, Wilcoxon).

Four abnormal tests discriminated the two groups with a sensitivity of 23.3% and a specificity of 93.3%.

Conclusion: Migraine patients consistently showed abnormal vestibular bedside tests when compared with healthy controls. This indicates that the vestibular function is impaired subclinically in migraineurs without vestibular complains and that bedside tests are suitable to detect such dysfunctions. Whether these changes are specific for migraine remains to be determined.

Vestibular Bedside Examination Tests					
Test	Migraine (n=30)		Controls (n=30)		p-Value
	Normal	Abnormal	Normal	Abnormal	
HIT	19	11	23	7	0.344
HSM	28	2	30	0	0.130
DVA	17	13	22	8	0.267
SVV	26	4	26	4	0.074
CTSIB	24	6	27	3	0.375
SRT	19	11	27	3	0.039
FST	13	17	18	12	0.302
PPT	24	6	26	4	0.754