

DIAGNOSTIC VALUE OF BLOOD BIOMARKER CALCITONIN-GENE-RELATED PEPTIDE IN EPISODIC MIGRAINE AND CERVICOGENIC HEADACHE

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Objective – to study the diagnostic significance of calcitonin-gene-related peptide (CGRP) in episodic migraine patients compare with and cervicogenic headache.

Methods and subjects. 112 patients included (84 women, 28 men; 18-58 years), episodic migraine with typical aura - 17, without aura - 60. Patients were divide into 3 groups: I - episodic migraine with cervicgia (42), II - episodic migraine only (35), III - cervicogenic headache (35). The visual analogue scale, MIDAS, HIT-6™ and Neck Disability Index were used. The control group had 30 healthy persons. The serum level of CGRP was determined by enzyme-linked immunosorbent assay using the sandwich ELISA principle.

Results. Plasma level of CGRP was higher in I and II group compared with the III group ( $p=0.012543$ ), in whom it did not differ from the control ( $51,48\pm 5,08$  pg/ml). The CGRP level was higher in women with migraine compared to men ( $p=0.000035$ ). The highest level of CGRP was observed in I group ( $242,98\pm 5,08$  pg/ml) in comparison with II group ( $145,82\pm 15,38$  pg/ml,  $p=0.000341$ ). The number of days with headache over the 3 months ( $p=0.000052$ ), the influence of headache according to the MIDAS and HIT-6 ( $p=0.000482$ ;  $p=0.000001$ ) and the number of combined analgesics used ( $p=0.000003$ ) were higher in group I than in group II.

Conclusions. The serum level of CGRP is a reliable diagnostic and differential diagnostic laboratory biomarker of episodic migraine. Additional painful syndrome such as cervicgia are influence on CGRP level and impact on daily activity and increase of analgesic intake in episodic migraine patients.

