EHMTI-0184. Ictal adiponectin levels are modulated by pain severity and treatment response in episodic migraineurs

The Harvard community has made this article openly available. Please share how this access benefits you. Your story matters.


Published Version doi:10.1186/1129-2377-15-S1-E25

Citable link http://nrs.harvard.edu/urn-3:HUL.InstRepos:13347445

Terms of Use This article was downloaded from Harvard University’s DASH repository, and is made available under the terms and conditions applicable to Other Posted Material, as set forth at http://nrs.harvard.edu/urn-3:HUL.InstRepos:dash.current.terms-of-use#LAA
EHMTI-0184. Ictal adiponectin levels are modulated by pain severity and treatment response in episodic migraineurs

NC Chai 1*, B Gelaye 2, GE Tietjen 3, PD Dash 4, BA Gower 5, LW White 1, TN Ward 6, AI Scher 7, BL Peterlin 1

From 4th European Headache and Migraine Trust International Congress: EHMTIC 2014 Copenhagen, Denmark. 18-21 September 2014

Introduction
Adiponectin (ADP) and leptin (LEP) are adipokines with roles in inflammation.

Aim
To assess ADP and LEP levels before and after acute abortive treatment in episodic migraineurs (EM).

Methods
Peripheral blood specimens were collected from EM participants before and after acute abortive treatment with sumatriptan/naproxen sodium versus placebo.

Results
A total of 34 participants (17 responders, 17 non-responders) were included. In all participants, for every 1 point increase in the HMW:T-ADP ratio, pain severity increased by 4.11 (CI: 0.44, 7.77; p = 0.028). In responders (n = 17), crude T-ADP levels were reduced at 30 min (11.49 ± 3.7; p = 0.001), 60 min (11.54 ± 3.2; p = 0.001) and 120 min (11.39 ± 3.7; p = 0.001) after treatment as compared to onset (12.47 ± 3.6). In non-responders (n = 17), crude T-ADP levels were unchanged after treatment. After adjustments, T-ADP levels remained decreased 30-120 min after treatment in responders; additionally, HMW-ADP, and the HMW:T-ADP ratio were decreased and LMW-ADP and the LMW:T-ADP ratio (coeff 0.04; CI: 0.01, 0.07; p = 0.043) were increased 120 min after treatment in responders. In non-responders, the adjusted LMW-ADP (coeff -0.45; CI: -0.77, -0.14; p = 0.005) and the LMW:T-ADP ratio (coeff -0.04; CI: -0.07, -0.01; p = 0.018) were decreased at 60 min as well as at 120 min after treatment. Unadjusted and adjusted LEP levels were not modulated by changes in pain severity or treatment response.

Conclusion
Adiponectin, but not leptin, is associated with pain severity and is modulated by treatment response in episodic migraineurs.

Conflict of interest.

Authors’ details
1 Neurology, Johns Hopkins University School of Medicine, Baltimore, USA. 2 Epidemiology, Harvard School of Public Health, Boston, USA. 3 Neurology, University of Toledo, Toledo, USA. 4 Neurology, Johns Hopkins Community Physicians, Baltimore, USA. 5 Department of Nutrition Sciences, University of Alabama at Birmingham, Birmingham, USA. 6 Neurology, Dartmouth Hitchcock Medical Center, Lebanon, USA. 7 Preventive Medicine and Biometrics, Uniformed Services University, Bethesda, USA.

Published: 18 September 2014

© 2014 Chai et al; licensee Springer. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/2.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.