

AAN 66th ANNUAL MEETING ABSTRACT

Media Contacts:

Rachel Seroka, rseroka@aan.com, (612) 928-6129

Michelle Uher, muher@aan.com, (612) 928-6120

EMBARGOED FOR RELEASE UNTIL 4 P.M. ET, WEDNESDAY FEBRUARY 19, 2014

Abstract Title: Association Between Stress and Headache Frequency

Press Release Title: Does More Stress Equal More Headaches?

Objective: We evaluated the association between stress intensity and headache frequency for tension type headache (TTH), migraine and migraine with coexisting TTH.

Author(s): Sara H. Schramm, MD, Susanne Moebus, Nils Lehmann, Ursula Galli, Mark Obermann, MD, Eva Bock; Min-Suk Yoon, MD, H. Diener, MD, FAAN, Zaza Katsarava, MD

Background: It is supposed that stress can be a predisposing factor contributing to the onset of headache disorders, that it accelerates the progression to chronic headache, provokes and exacerbates headache episodes and that the headache experience itself can serve as a stressor.

Design/Method: We analyzed data of the population-based German Headache Consortium Study, which included 5,159 participants aged 21-71 years. The participants were screened quarterly from 2010-2012, using validated questionnaires. Headache subtypes were defined according to the criteria of the International Headache Society. Poisson log-linear regression in the framework of Generalized Estimating Equations was used to estimate the effects of stress intensity on headache frequency (days/month) for different headache subtypes, using a visual analogue scale (VAS) from 0-100. Percent changes with 95% confidence intervals (95%CI) were adjusted for sex, age, frequent intake of acute pain drugs, drinking, smoking, body mass index and education.

Results: TTH was reported in 1,598 (31%) participants (48.1±12.5 years, 51.5% women, 2.2±3.9 mean headache days/month, 52.3±26.7 mean stress), migraine in 14.0% (44.8±11.3, 73.3%, 4.5±5.2, 62.4±23.3), migraine with coexisting TTH in 10.6% (43.5±11.5, 61%, 3.6±4.8, 58.6±24.1) and unclassifiable headache in 17.3%. Participants experienced an increase in headache frequency with increasing stress intensity independent of headache subtype. The highest effects were observed in participants with TTH: Increase of 10 points on the VAS in stress intensity was associated with a 6.3% (95% CI: 4.3-8.3%) increase in headache days/month, migraine 4.3% (2.4-6.2%), migraine with coexisting TTH 4.0% (1.8-6.3%).

Conclusions: This large prospective population-based cohort study provides evidence for an association between stress intensity and headache frequency. Our findings are of importance for stress management approaches in headache patients.

Study Supported by: The German Federal Ministry of Education and Research