Abstract Title: Relative Contribution of Migraine with Aura to Cardiovascular Disease Occurrence in Women

Press Release Title: Migraine with Aura May Lead to Heart Attack, Blood Clots for Women

Objective: To evaluate the relative contribution of migraine with aura (MA) to cardiovascular disease (CVD) incidence in a large prospective cohort of apparently healthy women.

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Background: Migraine with aura has been consistently linked with increased risk of ischemic stroke. There is emerging evidence that MA is also a marker for increased CVD risk. However, the relative contribution of MA to the occurrence of CVD in relation to other major vascular risk factors remains unclear.

Design/Methods: Prospective cohort study of 27,860 women aged ≥45 who were participating in the Women's Health Study were free of CVD at baseline, and for whom we had self-reported information on migraine and lipid measurements. Women who were followed for medical record confirmed major CVD (nonfatal myocardial infarction, nonfatal stroke, or CVD death). We used multivariable standardization models to evaluate the contribution of MA to CVD risk relative to other major vascular risk factors.

Results: At baseline, 5130 reported migraine of whom 1435 (40%) reported MA. During 15 years of follow-up, 1030 major CVD events were confirmed (overall incidence rate [IR] 2.4 per 1000 women per year (95% confidence interval 2.3-2.6). After having a systolic blood pressure ≥180mgHg adjusted IR=9.8 (6.9-13.9), MA was the second strongest single contributor to major CVD risk (IR=7.9; 6.2-10.0) followed by diabetes (IR=7.1; 5.6-8.9), family history of premature myocardial infarction (IR=5.4; 4.5-6.5), current smoking (IR=5.4; 4.6-6.4), and body mass index ≥35 kg/m² (IR=5.3; 4.0-7.2). In relation to the Framingham risk score for coronary heart disease, women with MA had 10-year risk of major CVD comparable with the 2-4% Framingham risk group while women in the ≥10% risk group had highest major CVD risk (IR=16.6; 13.1-21.0).

Conclusions: While the combination of traditional vascular risk factors still shows the strongest contribution to CVD occurrence, MA is a strong relative contributor to increased risk of CVD events.

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