Abstract Title: Migraine with Aura and New Combined Hormonal Contraceptives: A Retrospective Analysis of Thrombotic Events

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

Objective: To identify the risk of thrombotic events in migraine both with and without aura (MwA and MWoA) patients using newer vs. older combined hormonal contraceptives (CHC).

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Background: The use of CHCs in women with aura is controversial, owing to worries about the synergistic thrombotic risks of MwA and estrogen. Newer CHCs have been associated with an increased risk of thrombotic events. A recent FDA analysis suggested an increased risk of DVT in users of newer CHCs. There are limited data on the use of the newer CHCs in patients with migraine with aura.

Design/Methods: We used the computerized Research Patient Data Registry (RPDR) of Partners Healthcare to identify a cohort of unique patients with MwA and MWoA who had been prescribed: levonorgestrel/ethinyl estradiol, norethindrone/ethinyl estradiol, norgestimate/ethinyl estradiol, (older agents) or drospirenone, norgestromin/ethinyl estradiol transdermal patch, etonogestrel/ethinyl estradiol vaginal ring, (newer agents). Within these groups we searched for diagnoses of selected thrombotic events.

Results: Out of a total population of almost 2 million women seen over the period 2001-2012, we identified roughly 145,304 who had used the selected CHCs. When evaluated by migraine type, a larger proportion of patients with MwA had experienced selected thrombotic complications compared with patients with MWoA. For example, 7.6% of women with MwA who used drospirenone-ethinyl estradiol were diagnosed with DVT compared with 6.3% of women with MWoA. Higher rates of thrombotic complications were observed with all CHCs in women with MwA compared with those with MWoA and with both newer and older contraceptives. Rates of thrombotic complications were higher in the migraine-CHC group than a comparable group of women without migraine using CHCs.

Conclusions: These preliminary data support the view that migraine, particularly migraine with aura is associated with an elevated risk of thrombotic complications in women who use CHCs. The risk appears particularly high with newer agents.

Study Supported by: The Graham Headache Center Research Fund.