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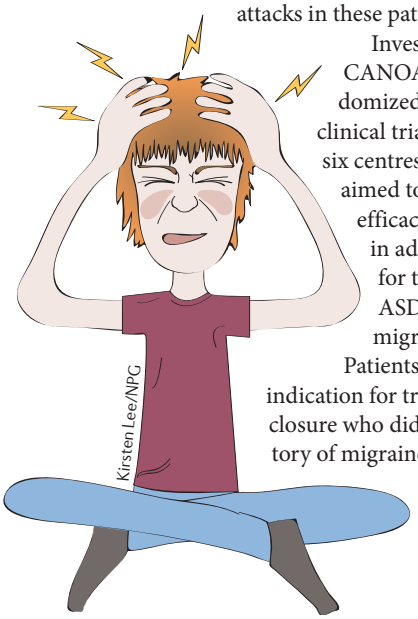
ANTIPLATELET THERAPY

Clopidogrel plus aspirin reduces migrane attacks after ASD closure

New-onset migraine attacks affect approximately 15% of patients undergoing transcatheter atrial septal defect (ASD) closure. Findings from the CANOA trial, presented at the AHA Scientific Sessions 2015 in Orlando, Florida, USA, and simultaneously published in *JAMA,* indicate that the use of clopidogrel plus aspirin, compared with aspirin alone, can reduce the frequency of migraine attacks in these patients.



Investigators in the CANOA study, a randomized, double-blind clinical trial conducted at six centres across Canada, aimed to evaluate the efficacy of clopidogrel in addition to aspirin for the prevention of ASD closure-induced migraine attacks. Patients with a clinical indication for transcatheter ASD closure who did not have a history of migraine headaches were enrolled into the study. Study participants were randomly assigned to receive either aspirin (80 mg per day) plus placebo (placebo group), or aspirin (80 mg per day) plus clopidogrel (75 mg per day; clopidogrel group). Treatment commenced 24 h before ASD closure and continued for 3 months thereafter. The frequency of migraine attacks were assessed at 1-month and 3-month follow-up using a structured migraine headache questionnaire. The primary efficacy end point was the number of new-onset migraine attacks per month after ASD closure.

The final study cohort included 87 patients in the placebo group and 84 patients in the clopidogrel group. The mean number of monthly migraine days within the 3-month follow-up period was lower in the clopidogrel group (0.4 days, 95% CI 0.07–0.69) than in the placebo group (1.4 days, 95% CI 0.54–2.26). Furthermore, the clopidogrel group had a lower incidence of migraine attacks after ASD closure than the placebo group (9.5% versus 21.8%; $P = 0.03$). Among patients who reported migraines after ASD closure, none in the clopidogrel group characterized their migraines as moderately or severely disabling, compared with seven patients (37%) in the placebo group (difference –36.8%, 95% CI –58.5% to –15.2%, $P = 0.046$).

According to the study investigators, the CANOA trial is the "first randomized trial in this field, [which] confirmed prior observations on the incidence of migraine attacks following transcatheter ASD closure and demonstrated the usefulness of dual antiplatelet therapy for preventing and reducing, by more than 50%, the burden of such migraine episodes following the procedure". Additional studies to evaluate the generalizability and durability of this treatment regimen are required.

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ORIGINAL ARTICLE Rodés-Cabau, J. *et al.* Effect of clopidogrel and aspirin vs aspirin alone on migraine headaches after transcatheter atrial septal defect closure: the CONOA randomized clinical trial. *JAMA* doi:10.1001/jama.2015.13919