Medical trial finds ticagrelor–aspirin antiplatelet therapy more beneficial in persons with normal renal function

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An analysis of the CHANCE-2 trial has found that persons with normal renal function receive greater benefit from antiplatelet therapy with ticagrelor–aspirin versus clopidogrel–aspirin. The analysis is published in *Annals of Internal Medicine.*

Dual antiplatelet therapy with clopidogrel–aspirin is often recommended for preventing stroke and can reduce thrombotic risk in patients with impaired renal function. Ticagrelor can provide greater, faster, and more consistent P2Y12 inhibition than clopidogrel and has been shown to be an effective antiplatelet therapy for preventing recurrent strokes.

Reduced renal clearance of clopidogrel could increase the risk for increased plasma concentrations in patients with impaired renal function, so renal function needs to be considered when selecting optimal antiplatelet therapy.

Researchers from Capital Medical University, Beijing, conducted a post-hoc analysis of the CHANCE-2 trial comprising 6,378 patients who experienced CYP2C19 loss-of-function allele carriers with minor stroke or transient ischemic attack to investigate the effect of renal function on the efficacy and safety of ticagrelor–aspirin versus clopidogrel–aspirin treatment.

In the trial, patients received either ticagrelor–aspirin or clopidogrel–aspirin and their renal function was evaluated by estimated glomerular filtration rate (eGFR) levels. The authors found that ticagrelor–aspirin, compared with clopidogrel–aspirin substantially reduced the risk for recurrent stroke within 90 days of follow-up in patients with normal renal function, but this benefit was not apparent in those with mildly or moderately to severely decreased renal function.

They also report that there was no absolute increase in severe or moderate bleeding events with ticagrelor–aspirin treatment across eGFR categories. According to the authors, their findings suggest that renal function should be considered when deciding on the use of ticagrelor–aspirin versus clopidogrel–aspirin.

More information: Anxin Wang et al, Ticagrelor–Aspirin Versus

Clopidogrel–Aspirin Among CYP2C19 Loss-of-Function Carriers With Minor Stroke or Transient Ischemic Attack in Relation to Renal Function: A Post Hoc Analysis of the CHANCE-2 Trial, *Annals of Internal Medicine* (2022). DOI: 10.7326/M22-1667