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RESEARCH ARTICLE September 13, 2024

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Duration of Benefit and Risk of Dual Antiplatelet Therapy up to 72 Hours After Mild Ischemic Stroke and Transient Ischemic Attack

VIEW EDITORIAL

Ling Guan, PhD, Shangrong Han, MD, S. Claiborne Johnston, MD, PhD, Philip M. Bath, DSc, FRCP, Pierre Amarenco, MD, PhD, Yingying Yang, MD, PhD, Tingting Wang, MD, PhD, ... SHOW ALL ..., and Yuesong Pan, PhD | AUTHORS INFO & AFFILIATIONS

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Abstract

Background and Objectives

Clopidogrel-aspirin initiated within 72 hours of symptom onset is effective in patients with mild ischemic stroke or transient ischemic attack (TIA) in the Intensive Statin and Antiplatelet Therapy for Acute High-risk Intracranial or Extracranial Atherosclerosis (INSPIRES) trial. Uncertainties remain about the duration of the treatment effect. This study aimed to assess duration of benefit and risk of clopidogrel-aspirin in these patients.

Methods

The INSPIRES trial was a 2*2 factorial placebo-controlled randomized trial conducted in 222 hospitals in China. The 2 treatments did not interact and were evaluated separately. In this study, we performed secondary analyses based on antiplatelet treatment. All patients with mild stroke or TIA of presumed atherosclerotic cause within 72 hours of symptom onset enrolled in the trial were included. Patients were randomly assigned to receive clopidogrel-aspirin on days 1–21 followed by clopidogrel on days 22–90 or aspirin alone for 90 days. The primary efficacy outcome was major ischemic event which included the composite of ischemic stroke and nonhemorrhagic death. The primary safety outcome was moderate-to-severe bleeding. We estimated the risk difference between the 2 treatments for each stratified week.

Results

All 6,100 patients in the trial were included (3,050 in each group). The mean age was 65 years, and 3,915 patients (64.2%) were men. Compared with aspirin alone, the reduction of major ischemic events by clopidogrel-aspirin mainly occurred in the first week (absolute risk reduction [ARR] 1.42%, 95% CI 0.53%–2.32%) and remained in the second week (ARR 0.49%, 95% CI 0.09%–0.90%) and the third week (ARR 0.29%, 95% CI −0.05% to 0.62%). Numerical higher risk of moderate-to-severe bleedings in the clopidogrel-aspirin group was observed in the first 3 weeks (absolute risk increase 0.05% [95% CI

−0.10% to 0.20%], 0.10% [95% CI −0.09% to 0.29%], and 0.18% [95% CI −0.03% to 0.40%] in the first, second, and third weeks, respectively).

Conclusions

Among patients with mild ischemic stroke or high-risk TIA of presumed atherosclerotic cause, the net benefit of clopidogrel-aspirin initiated within 72 hours of symptom onset was pronounced in the first week and continued to a lesser degree in the following 2 weeks, outweighing the low, but ongoing hemorrhagic risk.

Trial Registration Information

ClinicalTrials.gov Identifier: NCT03635749.

Classification of Evidence

This study provides Class II evidence that among patients with mild ischemic stroke or high-risk TIA of presumed atherosclerotic cause, the net benefit of clopidogrel-aspirin initiated within 72 hours of symptom onset was pronounced in the first week and continued to a lesser degree in the following 2 weeks, outweighing the low but ongoing hemorrhagic risk.

Supplementary Material

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References

1. Amarenco P, Lavallée PC, Labreuche J, et al. One-year risk of stroke after transient ischemic attack or minor stroke. *N Engl J Med.* 2016;374(16):1533-1542.

   Crossref | PubMed | Google Scholar

2. Shahjouei S, Sadighi A, Chaudhary D, et al. A 5-decade analysis of incidence trends of ischemic stroke after transient ischemic attack: a systematic review and meta-analysis. *JAMA Neurol.* 2021;78(1):77-87.

   Crossref | PubMed | Google Scholar

3. Pan Y, Elm JJ, Li H, et al. Outcomes associated with clopidogrel-aspirin use in minor stroke or transient ischemic attack: a pooled analysis of clopidogrel in

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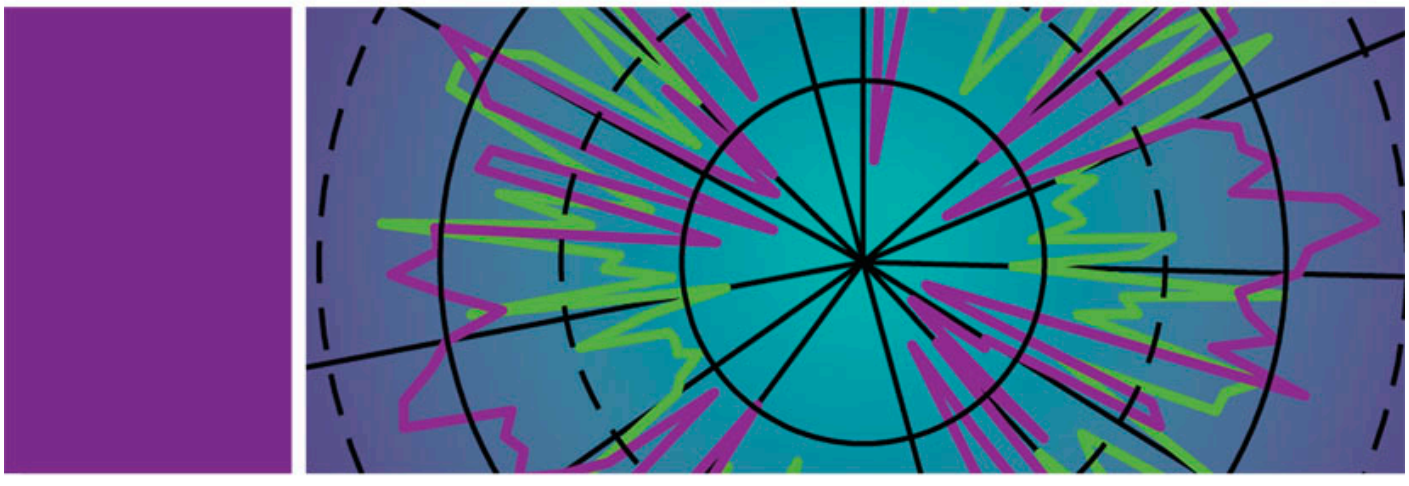

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