Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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The Reply

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We agree with Dr. Siegel's comments on our recent article[1] that plausible pathophysiologic mechanisms and observational data supporting a benefit for aspirin in Coronavirus Disease 2019 (COVID-19) exist. However, we would not recommend the generalized adoption and use of aspirin for the primary prevention of atherosclerotic cardiovascular disease events in the setting of the COVID-19 pandemic without a well-designed, placebo-controlled, randomized trial showing benefit. Throughout this pandemic, promising therapies have been used widely in patients with and without COVID-19 on the basis of pathophysiologic mechanisms and observational data, including hydroxychloroquine, azithromycin, and tocilizumab. For each of these therapies, later and more definitive randomized clinical trials failed to show benefit.[2-5] Early adoption exposed patients to harm through medication side effects and has been proposed as one of the reasons for higher death rates in locations that experienced outbreaks in the early months of the pandemic.[6] Aspirin use in primary atherosclerotic cardiovascular disease prevention also has risks. In our analysis, participants randomized to aspirin were at an increased risk of major bleeding compared to those randomized to placebo (rate ratio 1.41; 95% confidence interval 1.29-1.54).[1] In addition, in the Aspirin in Reducing Events in the Elderly (ASPREE) trial, healthy adults 70 years of age or older were at an increased risk of dying when randomized to aspirin compared to placebo (hazard ratio 1.14; 95% confidence interval 1.01-1.29).[7] Without a randomized controlled trial, there is no way to know whether aspirin would cause more benefit than harm for primary prevention during COVID-19. From the authors' perspective, we would err on the side of the null hypothesis and would not advise aspirin for primary prevention in the specific context of COVID-19 at this time.

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