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☆ **Spotlight on Special Topics**

LOW-DOSE ASPIRIN AND MORTALITY IN PATIENTS WITH CORONAVIRUS DISEASE 2019: A META-ANALYSIS

Poster Contributions
For exact presentation time, refer to the online ACC.22 Program Planner at <https://www.abstractsonline.com/pp8/#!/10461>

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Background: Exaggerated inflammation and hypercoagulability are the hallmarks of moderate-to-severe coronavirus disease 2019 (COVID-19). Several studies have investigated the use of low-dose aspirin in COVID-19 due to its anti-inflammatory and anti-thrombotic effects. However, the data regarding its impact on mortality in COVID-19 is conflicting. We aimed to evaluate the effect of aspirin use on mortality among COVID-19 patients.

Methods: We performed a comprehensive literature search of multiple electronic databases through July 30, 2021, for all studies that evaluated the impact of low-dose aspirin on mortality among COVID-19 patients. The primary outcome was mortality. Pooled risk ratio (RR) and 95% confidence intervals (CIs) were calculated using the random-effect model.

Results: A total of nine observational studies involving 16123 patients with COVID-19 (7115 in the aspirin group and 8258 in the control) were included. The mean age was 65.9±12.3 years, and males represented 94% of patients. There was no significant difference between the two groups (RR 0.87, CI 95% 0.53-1.42, P = 0.57, I² = 93%) (Figure 1). A leave-one-out sensitivity analysis showed consistent results. Although there was a visible asymmetry in the funnel plot, Egger’s regression analysis did not demonstrate statistically significant publication bias (P = 0.32).

Conclusion: Low-dose aspirin was not associated with reduced mortality in COVID-19. Randomized controlled studies are needed to validate our findings.

Study name	Statistics for each study				
	Risk ratio	Lower limit	Upper limit	Z-Value	p-Value
Alamdari, 2020	1.277	0.670	2.433	0.742	0.458
Chow, 2021	1.141	0.776	1.679	0.671	0.502
Haji Aghajani, 2021	1.445	1.172	1.783	3.440	0.001
Liu, 2021	1.325	0.310	5.670	0.379	0.705
Meizlish, 2021	0.522	0.336	0.811	-2.888	0.004
Merzon, 2021	0.360	0.019	6.662	-6.686	0.493
Osborne, 2021	0.411	0.359	0.472	-12.722	0.000
Sahai, 2021	0.868	0.564	1.337	-0.640	0.522
Yuan, 2021	0.956	0.517	1.768	-0.145	0.885
	0.866	0.528	1.421	-0.569	0.570

