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POSTER PRESENTATION

Ticagrelor Versus Prasugrel Following PCI in Coronary Artery Disease

A Meta-Analysis of One-Year Randomized Trial Outcomes

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INTRODUCTION

Comparative randomized evidence between ticagrelor- and prasugrel-based dual antiplatelet therapy (DAPT) following percutaneous coronary intervention (PCI) remains inconsistent, particularly regarding ischemic and bleeding outcomes.

AIM

To compare one-year ischemic and bleeding outcomes with ticagrelor- versus prasugrel-based DAPT in patients undergoing PCI.

METHODS

We performed a systematic review and meta-analysis of randomized controlled trials (RCTs) comparing ticagrelor- and prasugrel-based DAPT following PCI.

The primary outcome was major adverse cardiovascular events (MACE).

Secondary outcomes included all-cause mortality, cardiovascular death, myocardial infarction, stroke, stent thrombosis, and major bleeding.

Hazard ratios (HRs) with 95% confidence intervals (CIs) were pooled using random-effects models.

Prespecified sensitivity analyses focused on acute coronary syndrome (ACS) populations.

SENSITIVITY ANALYSES

Restriction to ACS populations yielded consistent findings.

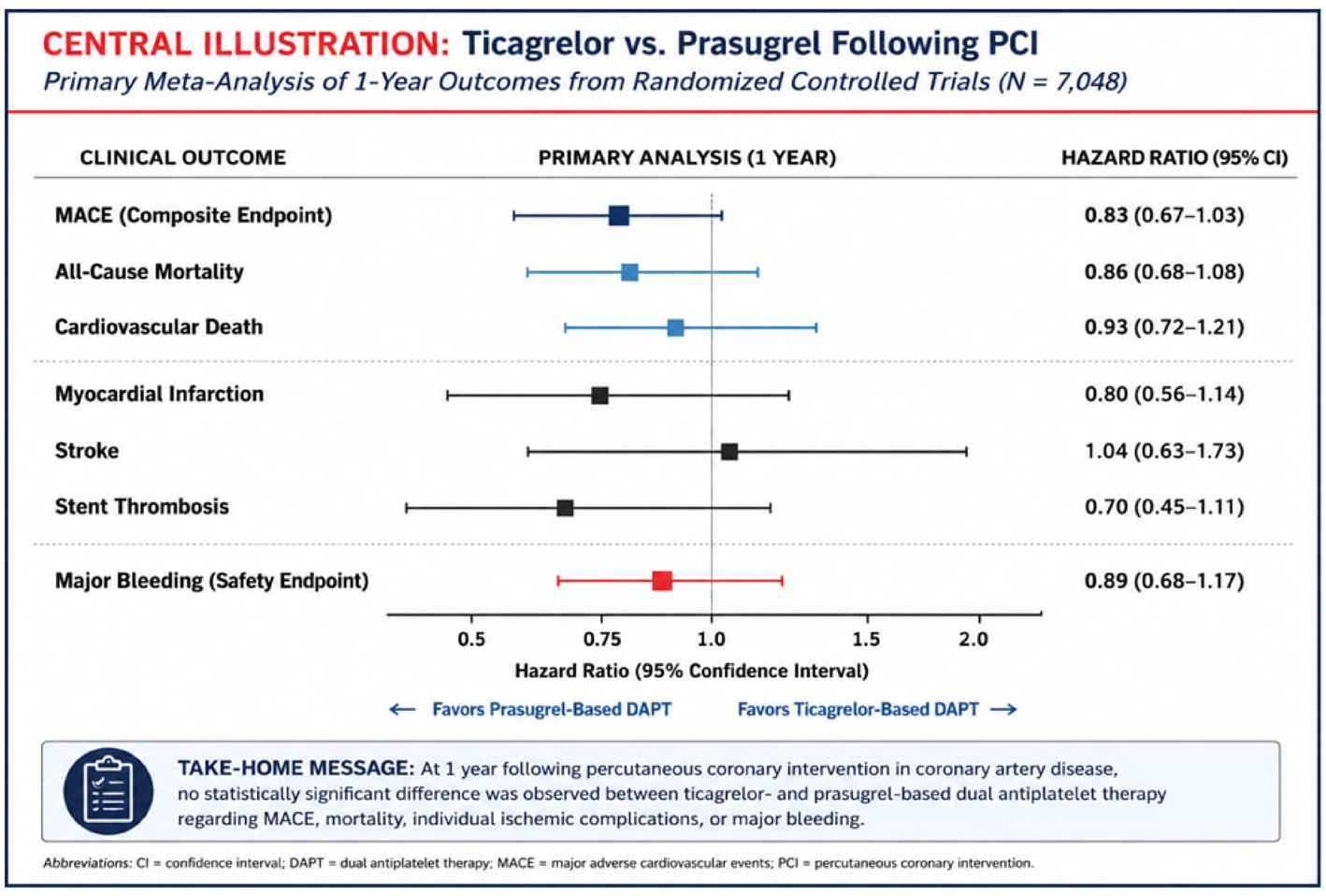
Exclusion of PRAGUE-18 demonstrated a significant reduction in MACE favoring prasugrel-based therapy (HR 0.77, 95% CI 0.65–0.91).

RESULTS

Three randomized trials included 7,048 patients.

At one year, prasugrel-based therapy was not associated with a significant reduction in MACE compared with ticagrelor-based therapy (HR 0.83, 95% CI 0.67–1.03).

Figure 1. Primary meta-analysis of one-year clinical outcomes



SECONDARY OUTCOMES

No statistically significant differences (HR, 95% CI):

All-cause mortality: 0.86 (0.68–1.08)

Cardiovascular death: 0.93 (0.72–1.21)

Myocardial infarction: 0.80 (0.56–1.14)

Stroke: 1.04 (0.63–1.73)

Stent thrombosis: 0.70 (0.45–1.11)

Major bleeding: 0.89 (0.68–1.17)

CONCLUSIONS

At one year, the pooled randomized evidence showed no statistically significant differences in ischemic or major bleeding outcomes between ticagrelor- and prasugrel-based DAPT. The sensitivity analysis excluding PRAGUE-18 suggested a potential MACE benefit with prasugrel.

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