

Abstract

Title: Comparing Bleeding Outcomes Between Ticagrelor and Prasugrel Following Percutaneous Coronary Intervention in Elderly Patients Receiving Dual Antiplatelet Therapy

Purpose: The purpose of this study is to compare the clinical outcomes between ticagrelor and prasugrel in elderly patients who were hospitalized for an acute myocardial infarction (MI) and had a percutaneous coronary intervention (PCI). The focus of this study is rates of bleeding within 30 days of hospital discharge.

Methods: The study included 100 patients 65 to 89 years old admitted to the hospital for a MI, underwent PCI, and discharged on DAPT with aspirin in addition to either of the studied drugs. The primary outcome of the study was the incidence of bleeding within 30 days following discharge. The secondary outcomes included a 30-day timeframe from discharge and included rehospitalization and death from MI, hospital readmission, emergency room or provider contacts due to bleeding, admission due to bleeding, and if bleeds were major or minor. All outcomes were assessed using the Fischer's Exact or Chi-Square test as appropriate. The Chi-Square or Student's t-test were also used to assess baseline characteristics for categorical versus continuous data.

Results: In the ticagrelor group, 4 patients reported bleeding events, while 5 patients reported bleeding events in the prasugrel group with one of those bleeds being classified as major. Both groups also had one patient contact their provider and present to the emergency department due to bleeding. All p-values were equal to 1.

Conclusion: This study did not find a significant difference in episodes of bleeding in patients between the ages of 65 and 89 years old who were on DAPT with aspirin and ticagrelor or prasugrel post-PCI following a myocardial infarction. However, it would be beneficial to have a randomized control trial to confirm drug safety in this population.