Abstract: P3758

Clinical characteristics and outcomes of atrial fibrillation patients with thrombocytopenia: the Fushimi AF Registry

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Background: Thrombocytopenia is sometimes found in routine blood tests and is reported as a risk factor of major bleeding events and incidence of all-cause death after percutaneous coronary intervention. However, the influence of thrombocytopenia on clinical outcomes in patients with atrial fibrillation (AF) remains unknown.

Purpose: We aimed to investigate relationship between baseline platelet count and clinical outcomes such as all-cause death, hospitalization for heart failure, and the major bleeding event in AF patients.

Methods: The Fushimi AF Registry was designed to enroll all of the AF patients in Fushimi-ku, Kyoto. Fushimi-ku is densely populated with a total population of 283,000 and is assumed to represent a typical urban community in Japan. Follow-up data with baseline platelet counts were available in 4,179 patients from March 2011 to November 2018. We divided the entire cohort into 3 groups according to baseline platelet level: No thrombocytopenia (=150,000/µL, n=3,323), Mild thrombocytopenia (100,000-149,999/µL, n=707), and Moderate/severe thrombocytopenia (=99,999/µL, n=149).

Results: In the entire cohort, the mean age was 73 years, 40% were women, and the mean body weight and body mass index was 59 kg and 23.1 kg/?, and the median platelet count were 192,000/µL (interquartile range 156,000 to 232,000/µL), respectively.

Compared to No thrombocytopenia, patients with thrombocytopenia were older (No vs. Mild vs. Moderate/severe; 73.3 years vs. 76.5 years vs. 75.8 years, p<0.0001), more likely to have heart failure (27.0% vs. 32.8% vs. 41.6%, p<0.0001), more likely to have chronic renal disease (35.7% vs. 42.6% vs. 57.7%, p<0.0001), and had higher CHADS2 score (2.05 vs. 2.17 vs. 2.34, p=0.0039) and CHA2DS2-VASc score (3.40 vs. 3.52 vs. 3.71, p=0.0416). Patients with thrombocytopenia had lower hemoglobin (13.0 vs. 12.8 vs. 11.6, p<0.0001) than No thrombocytopenia. However, prevalence of previous major bleeding events was comparable between three groups (4.66% vs. 4.67% vs. 5.37%, p=0.92).

On Kaplan-Meier analysis, the incidence of all-cause death was higher in Mild group (hazard ratio [HR] 1.51; 95% confidence interval [CI] 1.28-1.77) and Moderate/severe group (HR 2.97; 95%CI 2.28-3.80) than No group (Figure 1). The incidence of hospitalization for heart failure was higher in Mild group (HR 1.62; 95%CI 1.31-1.99) and Moderate/severe group (HR 2.64; 95%CI 1.76-3.81) than No group (Figure 2). The incidence of major bleeding event was higher in Mild group (HR 1.46; 95%CI 1.11-1.91) and Moderate/severe group (HR 2.45; 95%CI 1.41-3.91) than No group (Figure 3).

Conclusion: Thrombocytopenia in AF patients was associated with higher incidence of all-cause death, hospitalization for heart failure, and major bleeding event in the Fushimi AF Registry.
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