Association between acute hepatitis B flare and long-term clinical outcomes in patients with atrial fibrillation

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**Introduction**: Relationship between AF and inflammation was shown in previous studies. However, there was limited data about the association between the acute hepatitis B flare (AVHF-B) and AF in the long-term follow-up. The aim of this study was to evaluate the association of AVHF-B and long-term clinical outcomes in patients with AF.

**Methods**: Our University echocardiography, electrocardiogram (ECG) and hepatitis B database were reviewed from 2008 to 2017 to identify patients with AF and AVHF-B. Patients were followed for a mean 26.4±0.9 months and were divided into two groups according to the absence or presence of AVHF-B with AF.

**Result**: Among 280 patients with AF, 100 (35.7%) patients had AVHF-B. Total any event rates were significantly higher in patients with AVHF-B compared to those without AVHF-B (P<0.001). Arrhythmias including AF, atrial tachycardia, APC, VT, and VPC also occurred in 54 (19.3%) patients, with a significantly higher incidence in patients with AVHF-B than in those without AVHF-B (P<0.001). In univariate analysis, CHA2DS2 VASc, Left atrial diameter (LAD), E/E' (the peak mitral flow velocity of the early rapid filling wave/early diastolic mitral annulus velocity) and AVHF-B were significantly associated with arrhythmic events and total any events including thromboembolic events, arrhythmic events, re-hospitalizations and mortality. In multivariate analysis, AVHF-B was independent risk factors for arrhythmic events (P=0.031) at the long-term follow-up.

**Conclusion**: The patients with AVHF-B were associated with higher arrhythmic events and total any events, suggesting more intensive medical therapy with close clinical follow-up will be required.