Introduction: To investigate the anticoagulation status of patients with hypertrophic cardiomyopathy (HCM) and atrial fibrillation (AF) in the real world.

Methods: Senior patients (over 60 years old) with HCM and AF who discharged from January 1st, 2015 to December 31st, 2017 were retrospectively analyzed. The clinical data, including age, sex, body-mass index (BMI), classification of AF, CHA2DS2-VASc score, HAS-BLED score, left atrial diameter (anterior to posterior), estimated glomerular filtration rate (eGFR), and antiplatelet medication were collected. All patients were divided into two groups according to anticoagulation status. Patients receiving anticoagulation therapy were further divided according to the use of warfarin or new oral anticoagulants (NOACs).

Result: 85 of 134 (63.4%) patients were divided into the anticoagulation group and the rest 49 (36.6%) into the non-anticoagulation group. Univariate analysis revealed the non-anticoagulation group had more older patients [69 (65, 74) vs. 65 (62, 69), P=0.002], more female patients (55.1% vs. 36.47%, P=0.036), more patients with higher HAS-BLED scores [2(1, 3) vs. 1(0, 2), P=0.008] or previous bleeding history (18.37% vs. 7.06%, P=0.0455), and more patients combined with antiplatelet drugs [27(55.10%) vs. 10(11.76%), P <0.001], while BMI [23.53 (21.48, 25.39) kg/m2 than 25.40 (23.43, 28.34) kg/m2, P =0.012], the proportion of persistent atrial fibrillation (24.49% vs. 61.18%, P<0.001), left atrial diameter (anterior to posterior) [43 (39, 48) mm vs. 47 (42, 52) mm, P=0.007] were lower in this group. Multivariate analysis found lower BMI (OR=3.411, 95% CI 1.836-6.337), paroxysmal type of atrial fibrillation (OR=10.119, 95% CI 3.736-27.412) and combined with antiplatelet drugs (OR=15.860, 95% CI 5.26 -47.92) were related to non-anticoagulation. Among anticoagulated patients, there was no significant difference in clinical information between the warfarin and NOACs group. The administration of NOACs increased year by year (OR=3.314, 95% CI 1.634-6.721).

Conclusion: Lower BMI, paroxysmal type of AF, combination with antiplatelets were related to non-anticoagulation in senior patients with HCM and AF. NOACs were used increasingly by year.