Background Little is known about the prognostic value of diuretics for AF in patients with chronic systolic heart failure (CSHF).

Methods 16681 patients, diagnosed with CSHF, from 12 hospitals were analysed. Patients were categorised into AF group and non-AF group, death group and survival group according to the results of patients' medical records and follow-up. Univariate and multivariate Cox proportional hazards analyses were performed to examine the prognostic value of diuretics in AF and all-cause mortality. The multivariate Cox regression analysis and receiver operating characteristic (ROC) curves were performed to examine the sensitivity and specificity of diuretics in predicting AF.

Results Over 4.37 ± 0.78 years follow-up, diuretics exposure (HR 1.549, 95% CI 1.246 to 1.854; $p<0.001$) was an independent risk factor for AF. Hydrochlo-rothiazide >40 mg/day or furosemide≥40 mg/day can be used as a marker of higher incidence of AF. Over 5.82 ± 1.63 years follow-up, diuretics did not increase all-cause mortality. The ROC curve showed diuretics increase the specificity (83.9% vs 82.3%) in predicting AF, with AUC 63.2% (95% CI 62.1% to 64.3%) and 59.1% (95% CI 57.9% to 60.2%), respectively.

Conclusions Hydrochlorothiazide>40 mg/day or furosemide ≥40 mg/day is strongly and independently associated with AF in a large group of patients with CSHF. Diuretics can increase the specificity in predicting AF in patients with CSHF.

[gw22-e0298] **DIURETICS ADMINISTRATION CORRELATE WITH ATRIAL FIBRILLATION IN PATIENTS WITH CHRONIC SYSTOLIC HEART FAILURE**

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