GW23-e2194 **IMPACT OF DIABETES MELLITUS ON CORONARY ARTERY SPASM**

doi:10.1136/heartjnl-2012-302920a.206

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Objectives Both diabetes mellitus and coronary artery spasm (CAS) are associated with endothelial dysfunction. Thus, a higher

incidence of CAS is expected in diabetic patients.

We evaluated the impacts of diabetes mellitus (DM) and the status of blood sugar control on CAS with intracoronary acetylcholine (ACh) provocation test.

Methods A total of 986 patients (106 diabetic vs 880 non-diabetic patients) with angiographically normal coronary artery received ACh provocation test.

Significant CAS was defined as a transient >90% luminal narrowing with concurrent chest pain and/or ST-segment changes. HbA1c <7% was considered controlled blood sugar level.

Results The incidence of CAS was similar between patients with versus without DM (30.2% vs 23.5%, p=0.130).

Multivariable analysis showed that DM was not an independent risk factor for significant CAS (OR 1.29, 95% CI 0.81 to 2.07, p=0.280).

The angiographic characteristics of CAS were also similar between these two groups. Subgroup analysis regarding the impact of the status of blood sugar control on CAS showed that the incidence of CAS were similar between diabetic patients with versus without controlled blood sugar levels (35.4% vs 25.9%, p=0.286). Multivariable analysis showed that the uncontrolled blood sugar levels was not an independent risk factor for CAS (OR 0.79, 95% CI 0.29 to 2.13, p=0.640).

Conclusions Despite the expected endothelial dysfunction, DM and the status of blood sugar control, are not associated with CAS suggesting the existence of different mechanisms for CAS and coronary artery disease.