GW23-e0622

RELATIONSHIP BETWEEN ATRIAL ELECTROMECHANICAL FUNCTION IMPAIRMENT AND ATRIAL FIBRILLATION IN ALLOXAN-INDUCED DIABETIC RABBITS

doi:10.1136/heartjnl-2012-302920a.263

Fu Huaying, Liu Tong, Zhou Changyu, Liu Changle, Li Jian, Cheng Lijun, Yang Wansong, Li Guangping. *The Second Hospital of Tianjin Medical University*

Objectives To evaluate the potential relationship between atrial electromechanical function and atrial fibrillation (AF) inducibility in alloxan-induced diabetic rabbits.

Methods In 8 alloxan-induced diabetic rabbits and 8 controls, we measured atrial electromechanical coupling start intervals and P-a' peak intervals by DTE; Isolated Langendorff perfused rabbit hearts were prepared to evaluate vulnerability to AF. Sirius-Red staining was used to evaluate atrial fibrosis.

Results Compared with controls, left atrial (LA) lateral wall Pastart (latPastart) and right atrial wall Pastart (raPastart) were increased in diabetic rabbits. Inducibility of AF in diabetic group was significantly higher than controls (6/8 vs 1/8, $p<0.05$). Extensive interstitial fibrosis was observed in the DM group ($p<0.01$).

Conclusions Atrial electromechanical function is impaired in diabetic rabbits may serve as an important substrate for the development of AF.