GW23-e2588

EFFECT OF IRBESARTAN ON THE BURDEN OF ATRIAL FIBRILLATION IN THE HYPERTENSIVE PATIENTS WITH BRADYCARDIA-TACHYCARDIA SYNDROME UNDERGOING CARDIAC PACEMAKER IMPLANTATION

doi:10.1136/heartjnl-2012-302920a.98

[1]Xu Jianfeng, [1]Chen Yueguang, [2]Su Yangang, [1]Yu Qiang, [2]Qian Juying, [1]Zhang Dadong, [1]Chen Yueguang. *[1]Department of Cardiology, Center Hospital of Minhang District, Shanghai 201100, China; [2]Department of Cardiology, Zhongshan Hospital, Fudan University, Shanghai 200032, China*

Objectives To evaluate the effect of irbesartan, an angiotensin-receptor blocker, on the prevention of paroxysmal atrial fibrillation in the hypertensive patients with sick sinus syndrome and paroxysmal atrial fibrillation.

Methods 336 patients diagnosed with hypertension, sick sinus syndrome and paroxysmal atrial fibrillation, were prospectively enrolled. After implanted with dual-chamber pacemakers, they were randomly divided into two groups according to their treatments to hypertension were irbesartan (Gi, n=189) or nifedipine (Gn, n=147). The patients were followed up for one year, the maximum P wave duration (Pmax), the P wave dispersion (Pd), the cardiac remodelling, the data of automatic mode switch(AMS) and the total burden of atrial fibrillation were estimated, and the results were statistically analysed and compared between two groups.

Results The basic clinical characteristics of two groups, including echocardiological parameters, were comparable. One year later, no significant differences in the mean reduction both in systolic and in diastolic blood pressure were found in two groups, and the differences of Pmax were not remarkable too(122±7.6ms vs 124 ±8.1 ms, p>0.05). However, the increase of Pd in Gi was statistically lower than that in Gn (26.3±4.5 ms vs 32.1±5.2 ms, p<0.05). Moreover, though chocardiograms demonstrated that there were no apparently differences in left ventricular end-diastolic volume (LVEDV), left ventricular end-systolic volume (LVESV) and left ventricular ejection fraction (LVEF) in two groups, the diameters of right atrium (RA) and left atrium (LA) in Gi were significantly smaller than that in Gn (RA: 25.2±3.6 mm vs 27.5±4.3 mm, LA: 33.8±4.2 mm vs.39.5±5.1 mm, p all<0.05). Compared with those in Gn, the frequencies of AMS in Gi decreased more sharply (202 ±45 times vs 162±48 times, p<0.05), the duration of AMS shortened more apparently (291±68 h vs. 212±72 h, p<0.05), the total burden of atrial fibrillation eased more obviously (25.8±5.3% vs. 24.2±4.3%, p<0.05).

Conclusions Irbesartan, a conventional treatment to hypertension, additionally contributes to coordinate the anisotropy of double atrial depolarization, shortens the duration of atrial fibrillation, consequently leading to reducing the total burden of atrial fibrillation.