Hongquan Lu et al., J Clin Exp Cardiolog 2016, 7:10(Suppl)
http://dx.doi.org/10.4172/2155-9880.C1.053

Echocardiography guided right ventricular pacing lead tension adjustion decreases long term tricuspid insufficiency

Hongquan Lu, Kai Lan, Li Peng, Wenjie Guo, Yuxiao Zhang and Yukun Luo
PLA General Hospital, China

Objective: Evaluate the real time tension adjustion to right ventricular pacing lead guided by transthoretic echocardiography during implantation procedure to the influence of long term Tricuspid Insufficiency (TI).

Methods: Consecutive patients with following criteria were screened into the study: 1) Chronic three degree atriventricular conduction block. 2) Dual chamber pacemaker was intended to implant. 3) Without tricuspid insufficiency before procedure. 4) Right Passive fixation ventricular lead from Medtronic Company could be used. Enrolled patients were randomized into TAF group (tension adjustion by fluorospy) and TAE group (tension adjustion by fluorospy plus echocardiography). All passive leads were fixed at right ventricular apex. After satisfied parameter measurement, transtricuspid lead tension was adjusted by fluorospy only in TAF group and by fluorospy plus echocardiography. In TAE group, lead tension was adjusten by fluorospy at first. Then echocardiography was conducted to exam possible tricuspid insufficiency or valvular deformation until adjustion satisfaction. All patients were followed up more than 12 months by regular echocardiography.

Results: Total 76 patients (63.8±11.5 yrs, male 43) were enrolled. Thirty seven cases were randomized into TAF group (64.3±9.6 yrs, male 21) and 39 cases into TAE group (62.9±10.7 yrs, male 22). All procedures were successful without complications. In TAE group, mild to moderate TI were detected and rectified after primary floroscopy tension adjustion in 12 patients (30.8%). In TAF group, mild to moderate TI was detached within 24 hours after procedure in 9 patients (24.3%) and it was kept to the end of follow up. During the follow up of 17.5±4.8 months, TI in TAE group was significantly less than that in TAF group (0.5% vs. 24.3%, P<0.01).

Conclusions: Echocardiography guided right ventricular pacing lead tension adjustion significantly decreases acute and long term mild to moderate tricuspid insufficiency.

lhq030726@hotmail.com

Notes: