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LEFT ATRIAL APPENDAGE LIGATION IN PATIENTS WITH ATRIAL FIBRILLATION LEADS TO A DECREASE IN ATRIAL DISPERSION

Poster Contributions

Poster Hall B1

Saturday, March 14, 2015, 10:00 a.m.-10:45 a.m.

Session Title: What's Going On in the World of Atrial Fibrillation?

Abstract Category: 4. Arrhythmias and Clinical EP: AF/SVT

Presentation Number: 1115-246

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Background: Left atrial appendage (LAA) exclusion has been performed in patients with atrial fibrillation (AF) to prevent thrombus formation and subsequent cardioembolic events. The purpose of this study was to evaluate effects of LAA exclusion on P-wave characteristics and LA electrical remodeling.

Methods and Results: Twelve patients who were in sinus rhythm during the LAA-ligation procedure were included in the study. We evaluated the P-wave characteristics, including P-wave duration (PWD), P-wave amplitude (PWA), PQ-interval and P-wave dispersion before and after ligation. Nine patients had paroxysmal-AF and three patients had persistent-AF (male; 10 patients, female; 2 patients). PWD immediately after ligation was significantly shorter as compared with baseline in all limb leads except lead aVR ($P < 0.05$). PWA immediately after ligation was significantly greater as compared with baseline in inferior leads, however PWA after 1-3 months was significantly lower as compared with immediately after ligation. PQ-interval immediately after ligation was significantly shorter as compared with baseline ($P = 0.01$) and P-wave dispersion after 1-3 months was significantly shorter as compared with baseline ($P = 0.03$).

Conclusion: LAA exclusion produces consistent P-wave changes that represent reverse electrical atrial remodeling. This is a potential mechanism to explain the role of LAA ligation in maintaining sinus rhythm in patients with AF.

