**TRANSCATHETER AORTIC VALVE IMPLANTATION SHORTENS THE QTC INTERVAL IN PATIENTS WITH SEVERE AORTIC VALVE STENOSIS**

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*Background*: In patients with severe aortic stenosis, left ventricular hypertrophy develops as a compensatory mechanism for the increase in afterload. The QTc interval has been identified as predictor of mortality in patients with left ventricular hypertrophy. The aim of this study was to determine whether the prolonged QTc interval in this patient cohort normalizes following transcathether aortic valve implantation (TAVI).

*Methods*: Electronic medical records were retrieved in pts undergoing TAVI in a single center from July 2013-August 2015. Pts with permanent pacemaker prior to TAVI and those with incomplete information were excluded from analysis. Heart rate, QRS duration (QRSD), QT/QTc interval and ejection fraction (EF) were measured pre-TAVI and 1-month (mo), 2-11 mo, and ≥1 year post-TAVI.

*Results*: Among 170 pts (age 82±7 yrs, 54% M), TAVI performed via femoral and apical approach were 60% and 40%, respectively. EF increased 1-mo post TAVI (0.55±0.15 vs. 0.60±0.13, p < 0.001). QTc shortening occurred (469±57 ms vs. 444±34 ms, p < 0.01) at 1-year follow-up (Figure 1) despite QRS widening (102±22 ms pre- vs. 112±29 ms post, p < 0.01). Heart rate was unchanged throughout. All-cause mortality from TAVI was 0.6%.

*Conclusions*: The shortening of QTc interval in patients with severe aortic stenosis indicates TAVI improves both cardiac function and repolarization. Those effects may be causally related and responsible for the improved clinical outcome.