Effect of weight loss on QTc dispersion in obese subjects.

Seyfeli E, Duru M, Kuvandik G, Kaya H, Yalçin F.
Department of Cardiology, School of Medicine, Mustafa Kemal University, Hatay, Turkey. eseyfeli@hotmail.com

OBJECTIVE: Increased QTc dispersion is a predictor for ventricular arrhythmias. The aim of this study was to investigate whether QTc dispersion decreases after weight loss program with diet and medical treatment. METHODS: Total 30 (24 women and 6 men, mean age: 44+/-8 years) obese subjects who lost at least 10% of their original weight after 12 week weight loss program were included in present study. Obesity was defined as > or =30 kg/m(2) of body mass index (BMI). Normal weight was defined as < or = 25 kg/m(2) of BMI. RESULTS: After 12 week weight loss program, BMI decreased from 42+/-5 kg/m(2) to 36+/-4 kg/m(2) (p<0.001) and mean weight of obese subjects decreased from 110+/-17 kg to 95+/-15 kg (p<0.001). The mean amount of weight loss was 14.5+/-5.0 kg (range 9-32 kg). The average percent of weight loss was 13% (10.0%-20.3%). Maximum QTc interval (from 446+/-19 ms to 433+/-27 ms, p=0.024) and QTc dispersion (from 66+/-18 ms to 52+/-25 ms, p=0.024) significantly decreased after weight loss program. A statistically significant correlation was found between decrease in level of QTc dispersion and amount of weight loss (r=0.487, p=0.007). CONCLUSION: Substantial weight loss in obese subjects is accompanied by significantly decreased QTc dispersion. The degree of QTc dispersion reduction is associated with amount of weight loss.