Effect of weight loss on QTc dispersion in obese subjects.

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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.