

Abstract

At present, doctors are not consistent in the way they set the QTc interval in the recovery phase. The main goal of this study was to screen healthy subjects in the two different exercise stress tests and to compare the obtained data from both tests. We wanted to explore whether the heart rate and the QTc interval differs from each other when performed in two different body positions during the recovery phase. The main purpose was to present evidence that would prove or disprove a hypothesis that the figures differ in the different body positions. In the theoretical part we submitted the main information about the heart rate, the QT interval and the relationship between them. We compared the behaviour of the obtained data during the exercise and during the recovery phase. We described the causes of the QTc prolongation and how it is related to the cardiac arrhythmias. In the practical part we examined 20 healthy subjects. Each of them underwent two exercise stress tests on the bicycle ergometer, up to the subjective maximum level of the exercise intensity. The subjects then recovered in two different positions. The first one was a supine position. The second rest position was on the bicycle ergometer set to very low intensity. We found out that the 4-minute recovery phase, the most important for the screening, is the same in both positions. Thus, in this case, it does not depend on the recovery position. However, in the 7-minute recovery period, there is a statistically significant variation. This variation shows that it would be appropriate to unify the methods of obtaining the data.