

Patients survival rate after implantation of cardioverter-defibrillators

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Background/ Introduction

Today, implantation of cardioverter-defibrillators is an integral part of the treatment strategy for patients with cardiovascular diseases that are associated with the risk of sudden cardiac death. Every year there is an increase in the number of implantations, and with this nosology, the treatment method is beginning to be considered routine.

Results

The patient survival rate after ICD implantation was 58.1% for 71 months. The average survival time was 46.65 ± 2.86 months (CI 41.03-52.28). The maximum follow-up care for patients was 71 months. Among the studied patients, there were 90 men (81.8%) and 20 women (18.2%). The survival rate among women was 37.2% within 43 months after the surgery. The survival rate among men is 24.4% within 71 months after the surgery. The average life expectancy among women was 38.05 ± 6.63 months. (CI 25.05 - 51.04). The average life expectancy among men was 48.36 ± 3.12 months. (CI 42.23-54.49). The data obtained in the compared groups between women and men are statistically insignificant (Log-rank χ^2 1,787, $p = 0,181$; Breslow χ^2 2,022, $p = 0,155$; Taron-war χ^2 1,96, $p = 0,161$). The life expectancy of patients after ICD implantation during five years is reduced: in the first year - 84.4%, in the fifth year - 47.3%. Moreover, the life expectancy of women is higher compared to men. The mean age of the patients was 61.75 ± 9.90 years.

Purpose

The purpose is to study the effect of implantation of cardioverter-defibrillators on patient survival. The results can be used both to assess the prospects for the provision of arrhythmia treatment and to correct the medical and social aspects of treatment.

Methods

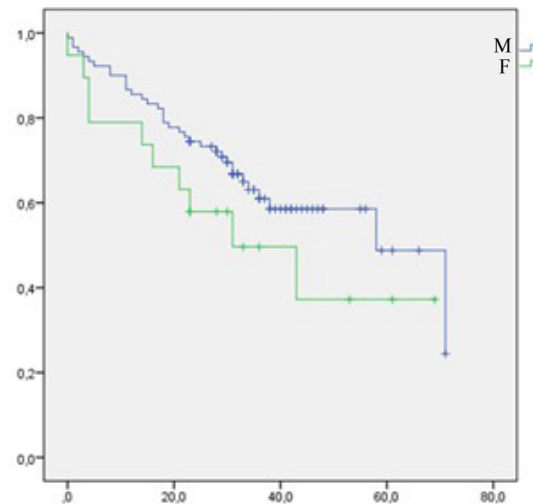
The study included 110 patients who underwent implantation of ICD devices from 2013 thru 2017 in of Almaty City Heart Centre. Statistical processing of the obtained data was carried out using the IBM SPSS Statistics 23.0 software and Microsoft Office 2019 package.

Conclusion

Thus, the survival rate in our study, in comparison with other similar studies, turned out to be lower, which is associated with the following: patients were taken for implantation due to the cardiac emergency, older age of the patients (average age 61.75 ± 9.90 years), and lack of proper cardio rehabilitation treatment at all stages of the provision of high-tech interventional arrhythmia treatment. Improving the the quality of care at the primary health care stage, referral of patients for implantation of devices before onset of decompensation, development of a rehabilitation program will improve survival rate.

Conflict of interest

The authors certify that they have NO affiliations with or involvement in any organization or entity with any financial interest



Pic. 1
Patients survival rate after implantation of cardioverter-defibrillators survival rate of patients after ICD implantation among men and women (in %) blue and green graph, respectively