Influence of telemonitoring on the quality of life of patients with implantable cardioverter defibrillators

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Influence of telemonitoring on the quality of life of patients with implantable cardioverter defibrillators

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Citation: Implantable cardioverter defibrillators (ICDs) are modern, sophisticated devices for reduction of the risk of sudden cardiovascular mortality. A number of studies revealed that ICD implantation leads to improvement in the quality of life of most patients. Currently, important role in modern ICDs operation is played by telemonitoring (TM). Contribution of ICDs operation TM to the change in quality of life is underestimated, and it has not been sufficiently studied.

Purpose: To make assessment of the quality of life of patients with implanted ICDs depending on the presence or absence of TM system using the SF-36 (Medical Outcomes Study-Short Form) questionnaire.

Materials and methods: 136 patients with one- and two-chambered ICDs were interviewed. Depending on the possibility of telemonitoring of the implanted device, patients were divided into two groups. Group with TM possibility included 71 respondents. In 65 patients, ICD operation without TM system was monitored only when visiting a doctor. Patients of both groups did not differ in clinical and demographic characteristics, except for the duration of follow-up. The quality of life was analyzed according 8 health scales of SF-36 questionnaire.

Findings: The presence of TM system was accompanied by significant improvement in quality of life according to the scales of physical functioning (p=0.013) and role functioning due to the physical condition (p=0.008), pain intensity (p=0.018), general health (p=0.031), vital activity (p=0.006), social functioning (p=0.035), and mental health (p=0.015). Generally, both physical and psychological components of health in patients under telemonitoring were higher than in case of office supervision (p=0.007 and p=0.019, respectively).

Conclusions: The quality of life of patients, in which telemetry control over ICDs operation was possible, was significantly higher according to almost all scales of SF-36 questionnaire.