TELEMONITORING OF USERS WITH PACEMAKERS: INFORMAL CAREGIVERS AT 5 YEARS AFTER IMPLANT

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ABSTRACT

Introduction: The use of telemonitoring of pacemakers is limited. Few studies have focused on their informal caregivers at long-term. To evaluate the burden borne to informal caregivers of patients with pacemakers, five years after implantation.

Methods: This is a controlled, non-randomised clinical trial. Data on baseline characteristics, workload and time worked were collected from informal caregivers, five years after implantation of pacemakers. Besides, the Spanish version of the Survey on Disabilities, Personal Autonomy, and Dependency Situations was used to get information on Clinical and social characteristics, levels of professionalism, duration and types of care, difficulties in providing care, health status, economic and job aspects, family and leisure.

Results: Fifty five patients with pacemakers finished the study. Of which, 50 needed to be helped by a caregiver, 18 were included in the telemonitoring and 32 in the hospital monitoring group. Overall, females represented 96.0% of the informal caregivers (88.89% in telemonitoring and 100.0% in hospital monitoring group). The mean ages were 63.17 ± 15.92 and 63.13 ± 14.56 years, respectively ($p = 0.83$) in the groups of telemonitoring and hospital monitoring group. The majority (88.0%) of the caregivers declared that they had to provide their services between 6 and 7 days per week (83.33% in telemonitoring group).

Conclusions: The results confirm that there were no significant differences between the informal caregivers regarding to baseline characteristics, workload and time worked in both groups of follow-up.

KEYWORDS

Disease Burden, Informal Caregiving, Pacemaker Follow-Up, Remote Monitoring, Telemedicine

1. INTRODUCTION

The use of telemonitoring (TM) of pacemakers is limited. Few studies have focused on their informal caregivers at long-term.

2. OBJECTIVE

To evaluate the burden borne to informal caregivers of patients with pacemakers, five years after implantation.

3. METHODS

This is a controlled, non-randomised clinical trial. Data on baseline characteristics, workload and time worked were collected from informal caregivers, five years after implantation of pacemakers. Besides, the Spanish version of the Survey on Disabilities, Personal Autonomy, and Dependency Situations was used to get information on 1) Clinical and social characteristics; 2) Levels of professionalism, 3) Duration and types

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of care; 4) Difficulties in providing care, 5) Health status, 6) Economic and job aspects, 7) Family and leisure.

Patients were included in the study if: 1) they had been implanted with a single [VVI-VVIR] or double chamber [VDD-DDD] Medtronic Carelink® pacemakers, 2) they were over 18 years old, 3) they were capable of understanding and correctly performing the home auto-monitoring or had a caregiver and 4) they agreed to participate in the study by signing the informed consent. Patients were excluded if: 1) they were enrolled in another study, 2) they had any other cardiac device, 3) they refused to participate.

The Almeria Health Research Ethical Committee approved the trial protocol and the study was developed in accordance with the precepts of the Declaration of Helsinki and Spanish laws on data protection and patient rights. All patients signed the corresponding informed consent prior to their enrolment, and appropriate measures were taken to ensure data privacy. The trial protocol was registered in ClinicalTrials.gov (Identifier: NCT02234245).

4. RESULTS

Fifty five patients with pacemakers finished the study. Of which, 50 needed to be helped by a caregiver, 18 were included in the TM and 32 in the hospital monitoring group (HM). Overall, females represented 96.0% of the informal caregivers (88.89% in TM and 100.0% in HM group). The mean ages were 63.17 ± 15.92 and 63.13 ± 14.56 years, respectively ($p = 0.83$) in the groups of TM and HM group. The majority (88.0%) of the caregivers declared that they had to provide their services between 6 and 7 days per week (83.33% in TM versus 90.63% in HM group). No significant differences between the two groups were found in any of questions of the Survey administrated.

5. CONCLUSIONS

The results confirm that there were no significant differences between the informal caregivers regarding to baseline characteristics, workload and time worked in both groups of follow-up.

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