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Evaluation of findings on 24-hour holter monitoring in patients with cardiac implantable electronic devices

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Background: Patients with CIEDs are more prone to the occurrence of atrial fibrillation (AF) and atrial and ventricular arrhythmias, which are correlated with the presence of comorbidities. The overall incidence of detecting device dysfunction on Holter recordings depends directly on the population studied. **Objective:** To evaluate the findings of Holter monitoring examinations in patients with CIEDs regarding their distribution by age and sex, as well as the incidence of: (1) atrial fibrillation (AF), (2) non-sustained ventricular tachycardia (NSVT), and (3) device dysfunction. **Materials and Methods:** A database survey and review of examinations from an online reporting service were conducted. Only Holter monitoring examinations of patients with CIEDs performed between January 2020 and May 2025 were evaluated. All described examinations were reviewed in order to identify and classify distribution by age and sex, as well as the presence of: (1) AF, (2) NSVT, and (3) implantable device dysfunction (either sensing failure or pacing failure). **Results:** A total of 168 examinations were analyzed, 54% male and 46% female patients, aged 26 to 97 years, with a mean age of 51 years. AF was identified in 11% of the examinations, with 77% occurring in men and 33% in women, ages ranging from 60 to 93 years, with a mean age of 60 years. NSVT was observed in 9% of the examinations, 86% in men and 14% in women, ages ranging from 44 to 96 years, with a mean age of 76 years. Device dysfunction was found in 5% of the examinations, 57% in men and 43% in women, ages ranging from 44 to 88 years, with a mean age of 72 years. Among these, 14% were due to loss of capture and 86% to sensing failure. **Conclusion:** There was a predominance of male patients. Findings of AF and NSVT were more frequent in men and in older age groups. A low incidence of device dysfunction was observed, with a predominance of sensing failures.

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