**Table 2. Baseline clinical characteristics and cancer-related variables of patients with new-onset cardiac implantable electronic device dysfunction**

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| --- | --- | --- | --- |
| **Clinical characteristics** | **New-onset CIED dysfunction** | |  |
| **YES (n=16)** | **NO (n=214)** | ***P*-value** |
| Age (years) | 77±7 | 78±8 | 0.61 |
| Male sex | 9 (56%) | 151 (71%) | 0.26 |
| Body mass index (kg/m2) | 27±3 | 26±4 | 0.63 |
| Diabetes mellitus | 4 (25%) | 53 (25%) | 1.00 |
| Hypertension | 13 (81%) | 158 (74%) | 0.58 |
| History of heart failure | 3 (19%) | 59 (28%) | 0.58 |
| Chronic atrial fibrillation/flutter | 9 (56%) | 102 (48%) | 0.61 |
| Previous myocardial infarction | 7 (44%) | 59 (28%) | 0.25 |
| Previous percutaneous coronary intervention | 4 (25%) | 34 (16%) | 0.48 |
| Prior coronary artery bypass grafting | 6 (38%) | 41 (19%) | 0.10 |
| Cerebrovascular disease | 1 (6%) | 20 (9%) | 1.00 |
| Peripheral vascular disease | 3 (19%) | 27 (13%) | 0.70 |
| Chronic obstructive pulmonary disease | 3 (19%) | 41 (19%) | 1.00 |
| Estimated glomerular filtration rate (mL/min/1.72m2) | 76±29 | 79±30 | 0.78 |
| Chronic kidney disease | 6 (38%) | 43 (20%) | 0.12 |
| **Echocardiographic data** |  |  |  |
| Left ventricular ejection fraction (%) | 44±16 | 50±15 | 0.25 |
| Left ventricular ejection fraction <40% | 4 (36%) | 30 (27%) | 0.73 |
| Pulmonary artery systolic pressure (mmHg) | 35±9 | 32±10 | 0.38 |
| **Underlying conduction disorder or disease** |  |  |  |
| Sick sinus syndrome | 9 (56%) | 98 (46%) | 0.75 |
| Second or third degree atrio-ventricular block | 5 (31%) | 90 (42%) |
| Bifascicular block plus first-degree atrio-ventricular block | 0 | 2 (1%) |
| Sudden cardiac death prevention and/or advanced heart failure | 2 (13%) | 24 (10%) |
| **Cardiac implantable electronic devices data** |  |  |  |
| Permanent pacemakers |  |  |  |
| Dual-chamber | 10 (63%) | 125 (58%) | 0.29 |
| Single-chamber | 4 (25%) | 61 (29%) |
| Cardioverter defibrillators | 1 (6%) | 20 (9%) |
| Cardioverter defibrillators and resynchronizators | 2 (13%) | 8 (4%) |
| Age of the device at time of radiotherapy (years) | 2.5±1.5 | 3.8±3.4 | 0.005 |
| Pacemaker dependency\* | 9 (56%) | 67 (31%) | 0.054 |
| Device localization regarding radiation field |  |  |  |
| Left pectoral | 11 (69%) | 180 (84%) | 0.58 |
| Right pectoral | 3 (19%) | 29 (14%) |
| Abdominal | 2 (13%) | 5 (2%) |
| Device relocation before radiotherapy | 4 (25%) | 17 (8%) | 0.045 |
| Magnet over the CIED | 5 (31%) | 46 (22%) | 0.53 |
| **Type of cancer** |  |  |  |
| Brain/cranial | 0 | 10 (5%) | 1.00 |
| Oto-rhino-laryngological | 1 (6%) | 16 (7%) | 1.00 |
| Esophageal and gastric | 1 (6%) | 10 (5%) | 1.00 |
| Lung and pleural | 3 (19%) | 54 (25%) | 1.00 |
| Breast | 6 (38%) | 29 (14%) | 0.27 |
| Colorectal | 0 | 13 (6%) | 1.00 |
| Prostate | 5 (31%) | 43 (20%) | 1.00 |
| Lymphoma | 0 | 11 (5%) | 1.00 |
| Multiple myeloma | 0 | 7 (3%) | 1.00 |
| Uro-genital | 0 | 13 (6%) | 1.00 |
| Bone | 0 | 2 (0.9%) | 1.00 |
| Skin | 0 | 3 (1.4%) | 1.00 |
| Other | 0 | 3 (1.4%) | 1.00 |
| **Radiation-exposure zone**\* |  |  |  |
| 1 | 0 | 13 (6%) | 0.61 |
| 2 | 1 (6%) | 21 (10%) | 0.72 |
| 3 | 9 (56%) | 97 (45%) | 0.44 |
| 4 | 1 (6%) | 20 (9%) | 1.00 |
| 5 | 5 (31%) | 78 (36%) | 0.79 |
| 6 | 0 | 2 (0.9%) | 1.00 |
| **Cancer localization side**\*\* |  |  |  |
| Left side of the body | 4 (25%) | 53 (25%) | 1.00 |
| Right side of the body | 6 (38%) | 55 (26%) | 0.38 |
| Center | 7 (44%) | 110 (51%) | 0.61 |
| **Radiotherapy data** |  |  |  |
| Total prescribed dose to the tumor (Gray) | 66±30 | 42±23 | <0.0001 |

Values are expressed as mean±SD or n (%) unless otherwise noted. CIED: cardiac implantable electronic device. Chronic kidney disease: estimated glomerular filtration rate <60 mL/min/1.72m2. Some percentages may not add up to 100 because of rounding. \*Pacemaker dependency: absence of an intrinsic rhythm above 30-35 beats/min after switching off the pacemaker and therefore, needing a back-up pacing. Some percentages may not add up to 100 because of rounding and/or because 17 patients had 2 affected adjacent zones\* and 5 patients had 2 affected sides\*\*.