# Supplementary material

**Supplementary Table 1.** Associated conditions in the study population.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Total | Group A | Group B | Group C | p |
| Patients, n | 811 | 128 | 234 | 449 | - |
| Systemic hypertension, n (%) | 403 (49.7%) | 43 (33.6%) | 136 (58.1%) | 224 (49.9%) | <0.001a |
| Age at HCM diagnosis, years ± SD | 62±12 | 63±13 | 62±11 | 61±13 | 0.773 |
| Other non-CV diseases, n (%) | 326 (40.2%) | 56 (43.8%) | 98 (41.9%) | 172 (38.3%) | 0.446 |
| Age at HCM diagnosis, years ± SD | 62±12 | 63±13 | 62±11 | 61±13 | 0.773 |
| Cerebrovascular disease, n (%) | 26 (3.2%) | 4 (3.1%) | 4 (1.7%) | 18 (4.0%) | 0.269 |
| Other neurologic diseases, n (%) | 18 (2.2%) | 1 (0.8%) | 9 (3.8%) | 8 (1.8%) | 0.107 |
| Renal disease, n (%) | 31 (3.8%) | 4 (3.1%) | 8 (3.4%) | 19 (4.2%) | 0.788 |
| Musculoskeletal disease, n (%) | 6 (0.7%) | 1 (0.8%) | 2 (0.9%) | 3 (0.7%) | 1.000 |
| Pulmonary disease, n (%) | 69 (8.5%) | 14 (10.9%) | 18 (7.7%) | 37 (8.2%) | 0.546 |
| Hepatic disease, n (%) | 8 (1%) | 1 (0.8%) | 2 (0.9%) | 5 (1.1%) | 1.000 |
| Hematologic disease, n (%) | 16 (2.0%) | 3 (2.3%) | 8 (3.4%) | 5 (1.1%) | 0.101 |
| Cancer, n (%) | 25 (3.1 %) | 1 (0.8%) | 12 (5.1%) | 12 (2.7%) | 0.055 |
| Other non-specified diseases, n (%) | 151 (18.6%) | 28 (22%) | 40 (17.1%) | 83 (18.5%) | 0.533 |

a p≤0.001 for A vs. B, p=0.041 for B vs. C.

CV: cardiovascular; Group A: patients with identified pathogenic or likely pathogenic mutation(s) in sarcomeric genes (see text for details); Group B: patients with no identified pathogenic or likely pathogenic mutations in sarcomeric genes; Group C: patients who did not undergo genetic testing for sarcomeric genes; HCM: hypertrophic cardiomyopathy; n: number of patients; SD: standard deviation.

**Supplementary Table 2.** Electrocardiographic data in the study population.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Total | Group A | Group B | Group C | p |
| Patients, na | 803 | 128 | 229 | 446 |  |
| Abnormal ECG | 764/803 (95.1%) | 121/128 (94.5%) | 219/229 (95.6%) | 424/446 (95.1%) | 0.892 |
| Atrial fibrillation | 76/764 (9.9%) | 14/121 (11.6%) | 17/219 (7.8%) | 45/424 (10.6%) | 0.421 |
| LVH pattern | 491/764 (64.3%) | 72/121 (59.5%) | 151/219 (68.9%) | 268/424 (63.2%) | 0.174 |
| Abnormal ST-T | 628/764 (82.2%) | 101/121 (83.5%) | 171/219 (78.1%) | 356/424 (84%) | 0.168 |
| LAFB | 99/764 (13%) | 17/121 (14%) | 28/219 (12.8%) | 54/424 (12.7%) | 0.927 |
| Short PR interval | 25/764 (3.3%) | 3/121 (2.5%) | 8/219 (3.7%) | 14/424 (3.3%) | 0.843 |
| Prolonged PR interval | 11/764 (1.4%) | 3/121 (2.5%) | 2/219 (0.9%) | 6/424 (1.4%) | 0.531 |
| LBBB | 36/764 (4.7%) | 3/121 (2.5%) | 15/219 (6.8%) | 18/424 (4.2%) | 0.151 |
| RBBB | 76/764 (9.9%) | 10/121 (8.3%) | 22/219 (10.0%) | 44/424 (10.4%) | 0.790 |
| Pacemakerb | 53/811 (6.5%) | 11/128 (8.6%) | 19/234 (8.1%) | 23/449 (5.1%) | 0.190 |

a number of patients with all electrocardiographic data in the table available.

b pacemaker implantation due to conduction disturbances or bradyarrhythmias (data were available for the 811 patients included in the study).

ECG: electrocardiogram; Group A: patients with identified pathogenic or likely pathogenic mutation(s) in sarcomeric genes (see text for details); Group B: patients with no identified pathogenic or likely pathogenic mutations in sarcomeric genes; Group C: patients who did not undergo genetic testing for sarcomeric genes; HCM: hypertrophic cardiomyopathy; LAFB: left anterior fascicular block; LBBB: left bundle branch block; LVH: left ventricular hypertrophy (ECG criteria); RBBB: right bundle branch block.

**Supplementary Table 3.** Concentric left ventricular hypertrophy or presence of left ventricular obstruction on echocardiography.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Total | Group A | Group B | Group C | p |
| Patients, n | 811 | 128 | 234 | 449 |  |
| Concentric LVH | 63/806a (7.8%) | 9/128a (7%) | 19/231a (8.2%) | 35/447a (7.8%) | 0.922 |
| LV obstruction | 325/811b (40.1%) | 40/128b (31.3%) | 92/234b (39.3%) | 193/449b (43%) | 0.055 |

 a total number of patients in each group with echocardiographic (echo) information regarding type and distribution of LVH.

b total number of patients in each group with echo information regarding presence of LV obstruction.

Group A: patients with identified pathogenic or likely pathogenic mutation(s) in sarcomeric genes (see text for details); Group B: patients with no identified pathogenic or likely pathogenic mutations in sarcomeric genes; Group C: patients who did not undergo genetic testing for sarcomeric genes; LVH: left ventricular hypertrophy; LV obstruction: left ventricular outflow tract or intraventricular obstruction.