Supplementary Material

**Table S1. LP parameter changes based on the increment of averaging time (nighttime)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **fQRS** |  |  |  |  |  |  |  |  |  |
| Averaging times |  | 250 | 300 | 400 | 500 | 600 | 700 | 800 | p |
| MI-VT group (ms) | 25 percentile percentile percentile percentile | 105.5 | 104.0 | 105.5 | 105.5 | 105.5 | 105.5 | 106.0 |  |
| n=30 (ms) | 50 percentile | 112.0 | 112.0 | 113.0 | 113.0 | 114.0 | 115.0 | 117.0 | <0.001 |
|  | 75 percentile | 138.0 | 138.0 | 138.0 | 138.0 | 139.5 | 139.5 | 140.0 |  |
|  |  |  |  |  |  |  |  |  |  |
| MI-non VT group | 25 percentile | 93.0 | 93.8 | 93.8 | 93.8 | 93.8 | 94.0 | 94.0 |  |
| (ms) | 50 percentile | 102.0 | 102.0 | 103.0 | 103.0 | 102.5 | 102.5 | 102.5 | 0.319 |
| n=74 | 75 percentile | 112.5 | 112.5 | 113.3 | 113.3 | 114.0 | 113.3 | 113.3 |  |
|  |  |  |  |  |  |  |  |  |  |
| Normal control | mean | 91.4 | 91.2 | 91.1 | 91.1 | 91.2 | 91.2 | 91.2 | 0.248 |
| group (ms), n=86 | SD | 7.5 | 7.5 | 7.6 | 7.6 | 7.4 | 7.5 | 7.5 |  |
|  |  |  |  |  |  |  |  |  |  |
| **LAS40** |  |  |  |  |  |  |  |  |  |
| Averaging times |  | 250 | 300 | 400 | 500 | 600 | 700 | 800 | p |
| MI-VT group (ms) | 25 percentile | 26.0 | 26.5 | 27.5 | 27.5 | 28.0 | 28.0 | 28.0 |  |
| n=30 (ms) | 50 percentile | 35.0 | 34.0 | 36.0 | 36.0 | 37.0 | 38.0 | 38.0 | <0.001 |
|  | 75 percentile | 47.5 | 47.5 | 47.5 | 47.5 | 48.0 | 48.0 | 48.0 |  |
|  |  |  |  |  |  |  |  |  |  |
| MI-non VT group | 25 percentile | 23.0 | 23.0 | 24.0 | 24.0 | 24.0 | 24.0 | 23.8 |  |
| (ms) | 50 percentile | 31.0 | 30.5 | 31.0 | 31.5 | 31.5 | 31.5 | 31.5 | 0.321 |
| n=74 | 75 percentile | 40.3 | 40.3 | 39.8 | 40.3 | 40.0 | 40.0 | 40.3 |  |
|  |  |  |  |  |  |  |  |  |  |
| Normal control | mean | 29.7 | 29.7 | 29.6 | 29.7 | 29.6 | 29.6 | 29.6 | 0.826 |
| group (ms), n=86 | SD | 7.2 | 7.2 | 7.4 | 7.3 | 7.4 | 7.3 | 7.3 |  |
|  |  |  |  |  |  |  |  |  |  |
| **RMS40** |  |  |  |  |  |  |  |  |  |
| Averaging times |  | 250 | 300 | 400 | 500 | 600 | 700 | 800 | p |
| MI-VT group (μV) | 25 percentile | 12.0 | 12.0 | 12.0 | 12.0 | 11.0 | 12.0 | 12.0 |  |
| n=30 (ms) | 50 percentile | 24.0 | 25.0 | 24.0 | 24.0 | 24.0 | 22.0 | 22.0 | <0.001 |
|  | 75 percentile | 51.5 | 49.5 | 48.5 | 48.5 | 44.0 | 43.5 | 43.0 |  |
|  |  |  |  |  |  |  |  |  |  |
| MI non-VT group | 25 percentile | 18.8 | 18.8 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 |  |
| (µV) | 50 percentile | 29.5 | 29.5 | 29.0 | 29.0 | 29.0 | 29.0 | 29.0 | 0.411 |
| n=74 | 75 percentile | 48.0 | 46.8 | 45.8 | 45.3 | 45.8 | 45.8 | 47.3 |  |
|  |  |  |  |  |  |  |  |  |  |
| Normal control | 25 percentile | 28.0 | 28.0 | 27.8 | 27.8 | 27.8 | 27.8 | 27.8 |  |
| group (µV) | 50 percentile | 45.0 | 45.0 | 45.0 | 45.0 | 46.0 | 46.0 | 46.0 | 0.716 |
| n=86 | 75 percentile | 64.0 | 67.3 | 66.3 | 66.3 | 66.3 | 65.5 | 65.5 |  |
|  | | | | | | | | | |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **LP parameter changes according to increment of averaging time (daytime)** | | | | | | | | | |
|  | | | | | | | | | |
| **fQRS** | | | | | | | | |  |
| Averaging times |  | 250 | 300 | 400 | 500 | 600 | 700 | 800 | p |
| MI-VT group (ms) | 25 percentile | 104.0 | 104.0 | 104.0 | 105.0 | 105.5 | 105.5 | 105.5 |  |
| n=30 | 50 percentile | 116.0 | 117.0 | 117.0 | 117.0 | 117.0 | 117.0 | 117.0 | <0.001 |
|  | 75 percentile | 136.5 | 136.5 | 137.5 | 137.5 | 137.5 | 137.5 | 137.0 |  |
|  |  |  |  |  |  |  |  |  |  |
| MI non-VT | 25 percentile | 89.8 | 89.8 | 90.0 | 90.0 | 90.0 | 90.0 | 90.0 |  |
| group (ms) | 50 percentile | 98.0 | 98.0 | 98.0 | 98.5 | 98.5 | 98.5 | 98.5 | 0.180 |
| n=74 | 75 percentile | 110.3 | 111.0 | 111.0 | 111.0 | 111.0 | 111.0 | 111.0 |  |
|  |  |  |  |  |  |  |  |  |  |
| Normal control | mean | 86.3 | 85.9 | 85.8 | 86.0 | 86.1 | 86.2 | 86.1 | 0.110 |
| group (ms), n=86 | SD | 8.1 | 8.1 | 7.8 | 7.9 | 7.8 | 7.8 | 7.8 |  |
|  | | | | | | | | |  |
| **LAS40** | | | | | | | | |  |
| Averaging times |  | 250 | 300 | 400 | 500 | 600 | 700 | 800 |  |
| MI-VT group (ms) | 25 percentile | 26.5 | 26.5 | 26.5 | 27.0 | 27.0 | 27.0 | 27.0 |  |
| n=30 | 50 percentile | 38.0 | 38.0 | 39.0 | 39.0 | 40.0 | 39.0 | 39.0 | <0.001 |
|  | 75 percentile | 48.5 | 48.5 | 49.5 | 48.0 | 48.5 | 48.0 | 48.0 |  |
|  |  |  |  |  |  |  |  |  |  |
| MI-non VT group | 25 percentile | 22.8 | 22.8 | 22.8 | 23.0 | 23.0 | 23.0 | 23.0 |  |
| (ms) | 50 percentile | 29.0 | 29.0 | 29.0 | 29.0 | 29.0 | 29.0 | 29.0 | 0.142 |
| n=74 | 75 percentile | 34.0 | 34.0 | 34.0 | 34.3 | 34.3 | 34.3 | 34.3 |  |
|  |  |  |  |  |  |  |  |  |  |
| Normal control | mean | 26.8 | 26.5 | 26.8 | 26.8 | 26.8 | 26.9 | 26.8 | 0.274 |
| group (ms), n=86 | SD | 7.3 | 7.3 | 7.2 | 7.1 | 7.0 | 7.1 | 7.1 |  |
|  |  |  |  |  |  |  |  |  |  |
| **RMS40** | | | | | | | | |  |
| Averaging times |  | 250 | 300 | 400 | 500 | 600 | 700 | 800 |  |
| MI-VT group (μV) | 25 percentile | 11.0 | 11.0 | 11.0 | 11.0 | 12.0 | 12.0 | 12.0 |  |
| n=30 | 50 percentile | 24.0 | 24.0 | 19.0 | 20.0 | 20.0 | 19.0 | 18.0 | <0.001 |
|  | 75 percentile | 55.0 | 51.0 | 51.0 | 51.0 | 47.5 | 47.5 | 46.0 |  |
|  |  |  |  |  |  |  |  |  |  |
| MI non-VT group | 25 percentile | 22.0 | 21.8 | 21.0 | 21.0 | 21.0 | 21.0 | 21.8 |  |
| (µV) | 50 percentile | 36.5 | 36.0 | 37.0 | 36.5 | 36.5 | 37.0 | 36.0 | 0.627 |
| n=74 | 75 percentile | 52.0 | 49.0 | 49.5 | 49.0 | 50.3 | 50.3 | 51.0 |  |
|  |  |  |  |  |  |  |  |  |  |
| Normal control | 25 percentile | 33.3 | 27.6 | 33.0 | 33.0 | 33.8 | 33.8 | 33.8 |  |
| group (µV) | 50 percentile | 58.0 | 58.0 | 58.0 | 58.0 | 58.0 | 57.0 | 57.0 | 0.089 |
| n=86 | 75 percentile | 83.0 | 82.5 | 82.5 | 83.5 | 84.3 | 83.3 | 83.3 |  |

fQRS, the filtered QRS duration; LAS40, the duration of low-amplitude signals <40 μV in the terminal filtered QRS complex; MI, myocardial infarction, RMS40, root mean square voltage of the terminal 40 ms in the filtered QRS complex; VT, ventricular tachycardia

**Table S2. Noise level changes based on the increment of averaging times (nighttime)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |
| Averaging times |  | 250 | 300 | 400 | 500 | 600 | 700 | 800 | p |
| MI-VT group (µV) (µV) | 25 Percentile | 0.23 | 0.21 | 0.19 | 0.18 | 0.17 | 0.16 | 0.15 |  |
| (µV) | 50 Percentile | 0.26 | 0.25 | 0.21 | 0.22 | 0.21 | 0.20 | 0.20 | <0.0010.001 |
|  | 75 Percentile | 0.36 | 0.33 | 0.28 | 0.26 | 0.25 | 0.25 | 0.23 |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Averaging times |  | 250 | 300 | 400 | 500 | 600 | 700 | 800 | p |
| MI non-VT group | 25 Percentile | 0.24 | 0.22 | 0.19 | 0.19 | 0.17 | 0.16 | 0.15 |  |
| (µV) | 50 Percentile | 0.29 | 0.27 | 0.24 | 0.24 | 0.21 | 0.22 | 0.21 | <0.0010.001 |
|  | 75 Percentile | 0.39 | 0.38 | 0.34 | 0.31 | 0.28 | 0.27 | 0.27 |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Averaging times |  | 250 | 300 | 400 | 500 | 600 | 700 | 800 | p |
| Normal control | 25 Percentile | 0.22 | 0.21 | 0.18 | 0.17 | 0.15 | 0.14 | 0.13 |  |
| group (µV) | 50 Percentile | 0.26 | 0.24 | 0.21 | 0.20 | 0.19 | 0.17 | 0.17 | <0.0010.001 |
|  | 75 Percentile | 0.32 | 0.33 | 0.29 | 0.27 | 0.24 | 0.25 | 0.24 |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Noise level changes according to increment of averaging times (Daytime)** | | | | | | | | |
|  | | | | | | | | |
| Averaging times |  | 250 | 300 | 400 | 500 | 600 | 700 | 800 | | p |
| MI-VT group (µV) | 25 Percentile | 0.31 | 0.33 | 0.28 | 0.25 | 0.21 | 0.21 | 0.20 | |  |
| (µV) | 50 Percentile | 0.43 | 0.41 | 0.35 | 0.33 | 0.32 | 0.28 | 0.29 | | <0.001 |
|  | 75 Percentile | 0.67 | 0.59 | 0.55 | 0.47 | 0.44 | 0.42 | 0.40 | |  |
|  |  |  |  |  |  |  |  |  | |  |
|  |  |  |  |  |  |  |  |  | |  |
| Averaging times |  | 250 | 300 | 400 | 500 | 600 | 700 | 800 | | p |
| MI non-VT group | 25 Percentile | 0.33 | 0.33 | 0.27 | 0.28 | 0.26 | 0.25 | 0.25 | |  |
| (µV) | 50 Percentile | 0.51 | 0.52 | 0.47 | 0.42 | 0.40 | 0.39 | 0.38 | | <0.001 |
|  | 75 Percentile | 0.75 | 0.69 | 0.66 | 0.61 | 0.61 | 0.61 | 0.59 | |  |
|  |  |  |  |  |  |  |  |  | |  |
|  |  |  |  |  |  |  |  |  | |  |
| Averaging times |  | 250 | 300 | 400 | 500 | 600 | 700 | 800 | | p |
| Normal control | 25 Percentile | 0.36 | 0.36 | 0.31 | 0.28 | 0.32 | 0.30 | 0.29 | |  |
| group (µV) | 50 Percentile | 0.55 | 0.53 | 0.52 | 0.50 | 0.49 | 0.46 | 0.45 | | <0.001 |
|  | 75 Percentile | 0.74 | 0.71 | 0.68 | 0.68 | 0.68 | 0.63 | 0.62 | |  |

MI, myocardial infarction; VT, ventricular tachycardia