**Supplementary Table 1. ECG and echocardiography in LAMA2-MD and SELENON-RM patients at baseline and after 1 year**

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| **ECG** | **Echocardiography (LVEF, GLS)** |
| **ID** | **Baseline** | **After 1 year** | **Changes** | **Baseline** | **After 1 year** | **Clinically relevant changes**  |
| **LAMA2-MD** |
| 1 | Poor R wave progression; Q waves in leads I, II, V5, V6 | QRS fragmentation in lead aVL; Q waves in leads I, V4, V5, V6; Poor R wave progression;  | New QRS fragmentation | 51%-12.4% (3P) | 44% (3D)-13.0% (2P) | No |
| 2 | QRS fragmentation in leads III, aVF and V1; Q waves in I and aVL; iRBBB; sinus arrhythmia | QRS fragmentation in leads III, aVF, V1, V3 and V4, Q waves in I and aVL, iRBBB | no | 67% (Teichholz B mode) | 71% (Teichholz B mode) | No |
| 3 | QRS fragmentation in leads III, aVL and V2; Q waves in I, aVL, V5 and V6; poor R wave progression | QRS fragmentation in leads III, aVL and aVF; Q waves in leads I, aVL and V5. | Disappearance of poor R wave progression | 56% (2P) | 55% (eyeball) | No |
| 4 | Q waves in leads V4 and V5  | QRS fragmentation in lead V1; Q waves in leads V4 and V5; poor R wave progression | New QRS fragmentation and new poor R wave progression | 61% (3D) | 56% (3P)-23.90% (3P) | No |
| 5 | Q waves in leads I and V6; poor R wave progression | Q waves in leads I and V6; poor R wave progression | No  | 61% (3D) | 60% (3D) | No |
| 6 | Q waves in leads I, II, III, aVL, aVF, V3, V4, V5 and V6; poor R wave progression; sinus arrhythmia  | Q waves in leads I, II, III, aVF, V4, V5 and V6; poor R wave progression; sinus arrhythmia | No  | 56% (A4C)-21.6% (3P) | 60% (A4C)-22.11% (3P) | No |
| 7 | QRS fragmentation in leads aVL and V2; Q waves in I, V5 and V6; iRBBB; sinus arrhythmia | QRS fragmentation in leads III, aVL, V3R, V1; Q waves in I, aVL, V5 and V6; sinus arrhythmia | Spontaneous disappearance of iRBBB | 66% (2P)-22.7% (3P) | 61% (2P)-23.39% (3P) | No |
| 8 | QRS fragmentation in leads III, aVF and aVL; Q waves in I, aVL, V4, V5 and V6; poor R wave progression | QRS fragmentation in leads III and aVL; Q waves in leads I, aVL, V5 and V6; poor R wave progression | No  | 60% (2P)-24.4% (3P) | 58% (2P)-23.54% (3P) | No |
| 9 | QRS fragmentation in leads II and aVF; Q waves in leads I, aVL and V2; Left Anterior Fascicular Block | QRS fragmentation in leads II, aVR, aVF, V1 and V3; Q waves in leads I and aVL; poor R wave progression; Left Anterior Fascicular Block. QRS 130 ms | New poor R wave progression. The most outstanding change is the increase of QRS from 109 ms to 130 ms | 44% (3D)-14.8% (3P) | 30% (3D)-12.50% | Yes  |
| 10 | Q wave in lead aVL; poor R wave progression | Q wave in lead aVL; poor R wave progression | No | 64% (3D)-23.9% (3P) | 57% (3D)-21.80% (3P) | No |
| 11 | QRS fragmentation in lead V1; Q waves in leads II, III, aVF, V5 and V6 | QRS fragmentation in lead V1; Q waves in leads II, III and V6 | No  | 61% (2P)-23.4% (3P) | 58% (2P)-23.81% (3P) | No |
| 12 | QRS fragmentation in lead V1; Q waves in leads I, II, aVL, V5 and V6; poor R wave progression; sinus arrhythmia | QRS fragmentation in leads V1; Q waves in leads I, II, III, aVL and V6; poor R wave progression; sinus arrhythmia | No | 58% (Teichholz B mode) | 59% (Teichholz B mode) | No |
| 13 | Q waves in leads V5 and V6; poor R wave progression, sinus arrhythmia | Q waves in leads V5 and V6; poor R wave progression, sinus arrhythmia | No  | 60% (2P)-17.7% (3P) | 64% (2P)-20.68% (3P) | No |
| 14 | QRS fragmentation in leads III, aVF and aVL; Q waves in I, aVL, V5 and V6; poor R wave progression | QRS fragmentation in leads III, aVF and aVL; Q waves in I, aVL and V6; poor R wave progression, sinus arrhythmias | No (except for sinus arrhythmia) | 40% (3D)-18.5% (3P) | 39% (3D) | No |
| 15 | Q waves in leads III and aVF; poor R wave progression; sinus arrythmia |  - |  - | 60% (2P) |  - | No |
| 16 | QRS fragmentation in lead V3; Q waves in leads II, aVF, V4, V5 and V6; iRBBB | QRS fragmentation in lead V2; Q waves in leads I, aVL, V4, V5 and V6; iRBBB | No  | 68% (Teichholz M mode) | 63% (3D)-27.90% (3D) | No |
| 17 | Q waves in leads V5 and V6; poor R wave progression |  - |  - | 59% (3P)-19.0% (3P) |  - | No |
| 18 | QRS fragmentation in leads III and aVF; Q waves in leads I, aVL, V4, V5 and V6, poor R wave progression; iRBBB; sinus arrhythmia | QRS fragmentation in leads III and aVF, Q waves in leads I, II, aVL, V3, V4, V5 and V6; poor R wave progression; iRBBB | No  | 59% (2P)-18.8% (3P) | 58% (2P)-21.91% (3P) | No |
| 19 | QRS fragmentation in lead V2; Q waves in leads II, III and aVF; poor R wave progression | QRS fragmentation in leads V2 and aVL; Q waves in leads III, aVF, V5 and V6; poor R wave progression | No | 64% (3D) | 65% (2P)-19.00% (3P) | No |
| 20 | QRS fragmentation in leads I, III, aVL and aVF; Q waves in leads I, V5 and V6; sinus arrhythmia | QRS fragmentation in leads I, III, aVL and aVF, Q waves in leads I and aVL | No | 63% (2P)-24.9% (3P) | 64% (3D)-26.09% (3P) | No |
| 21 | QRS fragmentation in leads I, II, III, aVL and aVF; Q waves in leads II, III, aVF, V4, V5 and V6;  | QRS fragmentation in leads III, aVL and aVF; Q waves in leads II, III, aVF, V4, V5 and V6; | No | 57% (Teichholz M mode) | 67% (Teichholz M mode) | No |
| **SELENON-RM** |
| 1 | QRS fragmentation in lead III, Q waves in I, aVL, V5 and V6, poor R wave progression; iRBBB | QRS fragmentation in lead III; Q waves in I, aVL, V4, V5 and V6; poor R wave progression | Spontaneous disappearance of iRBBB | 58% (Teichholz M mode) | 66% (Teichholz M mode)-21.4% (3P) | No |
| 2 | Q waves in lead III; poor R wave progression | Q waves in lead III; poor R wave progression | No  | 66% (3D)-19.3% (3P) | 64% (3D)-19.4% (3P) | No |
| 3 | QRS fragmentation in leads V1 and V2; Q waves in III; sinus arrhythmia | QRS fragmentation in leads V1 and V2; poor R wave progression; Q waves in III; sinus arrhythmia | New poor R wave progression | 66% (Teichholz M mode) | 64% (2P)-24.0% (3P) | No |
| 4 | QRS fragmentation in lead aVL; Q waves in leads II, III, aVF, V5 and V6; Poor R wave progression | QRS fragmentation in lead aVL; Q waves in leads II, III, aVF, V5 and V6; Poor R wave progression | No  | 54% (3D)-17.3% (A4C) | 58% (3D)-16,7% (A4C) | No |
| 5 | Q waves in leads II, III, aVF, V5 and V6; poor R wave progression; sinus arrhythmia | Q waves in leads II, V5 and V6; poor R wave progression; sinus arrhythmia | No | 69% (Teichholz M mode)-23.2% (3P) | 60% (2P)-22.9% (3P) | No |
| 6 | QRS fragmentation in leads II, III and V1; poor R wave progression; sinus arrhythmia; Right heart axis | Q waves in V3, V4, V5 and V6; poor R wave progression; Right heart axis | QRS fragmentation disappeared, Q waves appeared | 60% (3D)-15.8% (3P) | 57% (3D)-14.5% (3P) | No |
| 7 | QRS fragmentation in leads I and aVL; poor R wave progressie, iRBBB | QRS fragmentation in lead aVL, poor R wave progressie, iRBBB | No  | 58% (2P)-17.0% (3P) | 60% (eyeball) | No |
| 8 | QRS fragmentation in leads V1; Q waves in leads II, V5 and V6; poor R wave progression; sinus arrhythmia | Q waves in leads II, III, aVF, V4, V5 and V6; poor R wave progression; sinus arrhythmia | Disappearance of QRS fragmentation | 57% (2P)-24.3% (3P) | 67% (Teichholz B mode)-23.5% (3P) | No |
| 9 | QRS fragmentation in leads II, aVL and aVF; poor R wave progression, sinus arrhythmia | QRS fragmentation in leads II, III, aVL and aVF; poor R wave progression, sinus arrhythmia | No  | 58,4% (2P)-27.6% (3P) | 71,8% (Teichholz M mode) | No |
| 10 | QRS fragmentation in leads II, III, aVF, V5 and V6; Q waves in leads I and aVL | QRS fragmentation in leads II, III and aVF; Q waves in leads I, II, aVL, V5 and V6; poor R wave progression; sinus arrhythmia | New poor R wave progression and sinus arrhythmia |  | 58% (3D)-18.1% (3D) | No |

*ECG = electrocardiography; LAMA2-MD = LAMA2-related muscular dystrophy; SELENON-RM = SELENON-related congenital myopathy; LVEF=left ventricular ejection fraction; GLS=global longitudinal strength; iRBBB=incomplete right bundle branch block; 3D=tridimensional; 3P=triplane; 2P=biplane;*