Supplementary Table 1 – Clinical and biochemical parameters of the short-term MRA treatment cohort.

| Variables | Baseline (n=18) | 2 weeks (n=18) | 8 weeks (n=18) | Overall _ <i>P</i> -value | Pairwise comparisons | | |
|---------------------|--------------------|-------------------|-------------------|------------------------------|----------------------|----------|-----------|
| | | | | | B vs. 2W | B vs. 8W | 2 vs. 8 W |
| MRA dose (mg) | N.A. | 25 [12.5; 25] | 25 [12.5; 25] | - | - | - | - |
| SBP (mmHg) | 150 ± 15.7 | 143 ± 17.8 | 136 ± 18.3 | 0.008 | 0.189 | 0.015 | 0.189 |
| DBP (mmHg) | 88 ± 9.3 | 86 ± 9.0 | 82 ± 11.3 | 0.038 | 0.491 | 0.046 | 0.146 |
| DDD | 3.0 [2.5; 3.3] | 2.9 [2.3; 3.3] | 2.9 [2.3; 3.4] | 0.209 | - | - | - |
| Potassium (mmol/L) | 3.5 ± 0.53 | 3.8 ± 0.36 | 4.0 ± 0.36 | 0.011 | 0.008 | 0.025 | 0.233 |
| PRA (ng/mL/h) | 0.30 [0.16; 0.24] | 0.47 [0.39; 0.78] | 0.72 [0.48; 1.08] | < 0.001 | 0.008 | <0.001 | 0.999 |
| AC (ng/dL) | 23.4 [17.9; 34.0] | 32.7 [24.3; 44.7] | 29.0 [24.1; 51.1] | 0.056 | - | - | - |
| ARR (ng/dL/ng/mL/h) | 77 [63; 184] | 71 [49; 99] | 52 [28; 92] | 0.154 | - | - | - |
| ARR interpretation | | | | | | | |
| Positive test | 18 (100.0) | 15 (83.3) | 11 (61.1) | 0.010 | 0.229 | 0.008 | 0.264 |
| False negative test | 0 (0.0) | 3 (16.7) | 7 (38.9) | | | | |

Clinical and biochemical characteristics of patients with PA from the short-term MRA treatment cohort (18 patients). Blood pressure measurements, clinical evaluation and biochemical assessments were obtained at baseline and after both 2 weeks and 8 weeks of canrenone therapy.

Values are mean \pm SD, median [IQR], or absolute number (%).

Abbreviations: AC, aldosterone concentration; ARR, aldosterone-to-renin ratio; B, baseline; DBP, diastolic blood pressure; DDD, daily defined dose; MRA, mineralocorticoid receptor antagonist; PRA, plasma renin activity; SBP, systolic blood pressure; W, weeks.

Supplementary Table 2 – Clinical and biochemical parameters of the long-term MRA treatment cohort.

| Variables | Baseline (n=102) | 2-6 months (n=33) | 7-12 months (n=69) | Overall – <i>P-</i> value | Pairwise comparisons | | |
|---------------------|-------------------|----------------------|-----------------------|---------------------------|----------------------|---------|----------------|
| | | | | | B vs. | B vs. | \leq 6 M vs. |
| | | | | | ≤6 M | 7-12 M | 7-12 M |
| Follow-up (months) | N.A. | 3 [2; 6] | 12 [11; 12] | - | - | - | - |
| MRA dose (mg) | N.A. | 25 [25; 50] | 50 [25; 50] | - | - | - | - |
| SBP (mmHg) | 157 ± 21.2 | 137 ± 16.1 | 133 ± 15.4 | < 0.001 | < 0.001 | < 0.001 | 0.779 |
| DBP (mmHg) | 98 ± 12.1 | 85 ± 8.6 | 84 ± 9.4 | < 0.001 | < 0.001 | < 0.001 | 1.000 |
| DDD | 2.0 [1.0; 3.0] | 2.3 [1.3; 2.7] | 2.7 [1.3; 3.5] | 0.164 | - | - | - |
| Potassium (mmol/L) | 3.7 ± 0.55 | 4.4 ± 0.42 | 4.3 ± 0.53 | < 0.001 | < 0.001 | < 0.001 | 1.000 |
| PRA (ng/mL/h) | 0.20 [0.10; 0.40] | 0.83 [0.20; 1.70] | 2.30 [0.74; 5.60] | < 0.001 | < 0.001 | < 0.001 | 0.015 |
| AC (ng/dL) | 29.0 [19.9; 37.1] | 25.1 [15.8; 43.1] | 27.4 [17.1; 46.6] | 0.843 | - | - | - |
| ARR (ng/dL/ng/mL/h) | 121 [67; 179] | 29 [18; 91] | 12 [6; 35] | < 0.001 | < 0.001 | < 0.001 | 0.041 |
| ARR interpretation | | | | | | | |
| Positive test | 102 (100.0) | 15 (45.5) | 19 (27.5) | < 0.001 | < 0.001 | < 0.001 | 0.072 |
| False negative test | 0 (0.0) | 18 (54.5) | 50 (72.5) | | | | |

Clinical and biochemical characteristics of patients with PA from the long-term MRA treatment cohort (102 patients). Blood pressure measurements, clinical evaluation and biochemical assessments were obtained at baseline, and after 2-6 and 7-12 months of canrenone therapy in 33 and 69 patients, respectively.

Values are mean \pm SD, median [IQR], or absolute number (%).

Abbreviations: AC, aldosterone concentration; ARR, aldosterone-to-renin ratio; B, baseline; DBP, diastolic blood pressure; DDD, daily defined dose; M, months; MRA, mineralocorticoid receptor antagonist; PRA, plasma renin activity; SBP, systolic blood pressure.

Supplementary Table 3 – Clinical and biochemical parameters of patients according with MRA dosage.

| Variables | Baseline (n=120) | 12.5 mg (n=13) | 25 mg (n=69) | 50 mg (n=41) | 100 mg (n=15) | <i>P</i> -value |
|--|------------------------|----------------------|------------------------|------------------------|-----------------------|-----------------|
| SBP (mmHg) | 156 ± 20.6 | 135 ± 14.1 | 133 ± 14.7 | 137 ± 19.0 | 144 ± 16.8 | < 0.001 |
| DBP (mmHg) | 97 ± 12.3 | 85 ± 8.0 | 82 ± 8.2 | 86 ± 10.2 | 91 ± 10.4 | < 0.001 |
| DDD | 2.0 [1.0; 3.0] | 2.7 [1.2; 4.2] | 2.3 [1.3; 2.9] | 2.7 [1.7; 3.7] | 3.3 [2.8; 5.3] | 0.005 |
| Potassium (mmol/L) | 3.7 ± 0.55 | 4.1 ± 0.38 | 4.1 ± 0.49 | 4.3 ± 0.54 | 4.6 ± 0.36 | < 0.001 |
| PRA (ng/mL/h) | 0.28 [0.10; 0.40] | 0.49 [0.21; 0.73] | 0.74 [0.42; 1.72] | 1.70 [0.80; 6.01] | 4.90 [2.60; 9.40] | < 0.001 |
| AC (ng/dL) | 28.1 [18.3; 37.0] | 25.8 [21.2; 35.1] | 25.1 [20.0; 45.8] | 34.6 [15.3; 46.6] | 42.1 [33.3; 71.7] | 0.037 |
| ARR (ng/dL/ng/mL/h) ARR interpretation | 119 [66; 178] | 56 [29; 147] | 36 [14; 94] | 18 [5; 36] | 9 [3; 21] | <0.001 |
| Positive test False negative test | 120 (100.0) 0 (0.0) | 9 (69.2) 4 (30.8) | 37 (53.6) 32 (46.4) | 12 (29.3) 29 (70.7) | 2 (13.3) 13 (86.7) | <0.001 |

Clinical and biochemical characteristics of patients with PA on MRA according with canrenone dosage. For each dose category, the summation of patients receiving that particular dosage at each follow-up interval has been considered (clinical and biochemical data of patients from the short-term MRA cohort at both 2 and 8 weeks were counted).

Values are mean \pm SD, median [IQR], or absolute number (%).

Abbreviations: AC, aldosterone concentration; ARR, aldosterone-to-renin ratio; DBP, diastolic blood pressure; DDD, daily defined dose; MRA, mineralocorticoid receptor antagonist; PRA, plasma renin activity; SBP, systolic blood pressure.

Supplementary Table 4 – Biochemical parameters of patients according with TDM results.

| Variables | Positive TDM (n=65) | Negative TDM (n=9) | <i>P</i> -value | | | | |
|-------------------------------------|---------------------|--------------------|-----------------|--|--|--|--|
| Sample characteristics at Baseline | | | | | | | |
| Potassium (mmol/L) | 3.6 ± 0.54 | 3.9 ± 0.58 | 0.153 | | | | |
| PRA (ng/mL/h) | 0.30 [0.15; 0.33] | 0.30 [0.10; 0.47] | 0.993 | | | | |
| AC (ng/dL) | 25.9 [18.1; 36.8] | 26.5 [20.6; 41.2] | 0.810 | | | | |
| ARR (ng/dL/ng/mL/h) | 86 [65; 176] | 89 [57; 234] | 0.914 | | | | |
| Sample characteristics at Follow-up | | | | | | | |
| Potassium (mmol/L) | 4.0 ± 0.47 | 4.2 ± 0.36 | 0.331 | | | | |
| PRA (ng/mL/h) | 0.72 [0.44; 1.83] | 0.20 [0.10; 0.76] | 0.010 | | | | |
| AC (ng/dL) | 26.3 [20.1; 43.8] | 40.1 [18.1; 62.4] | 0.546 | | | | |
| ARR (ng/dL/ng/mL/h) | 35 [11; 91] | 117 [57; 351] | 0.003 | | | | |

Biochemical assessment of blood samples obtained from patients of the study cohort who underwent canrenone TDM (74 patients): 38 samples from the long-term and 36 samples from the short-term MRA treatment cohort (18 patients tested both at 2 and 8 weeks of canrenone therapy). Values are mean \pm SD, or median [IQR].

Abbreviations: AC, plasma aldosterone concentration; ARR, aldosterone-to-renin ratio; PRA, plasma renin activity; TDM, therapeutic drug monitoring.