

Supplementary Material

Supplementary Figure 1:

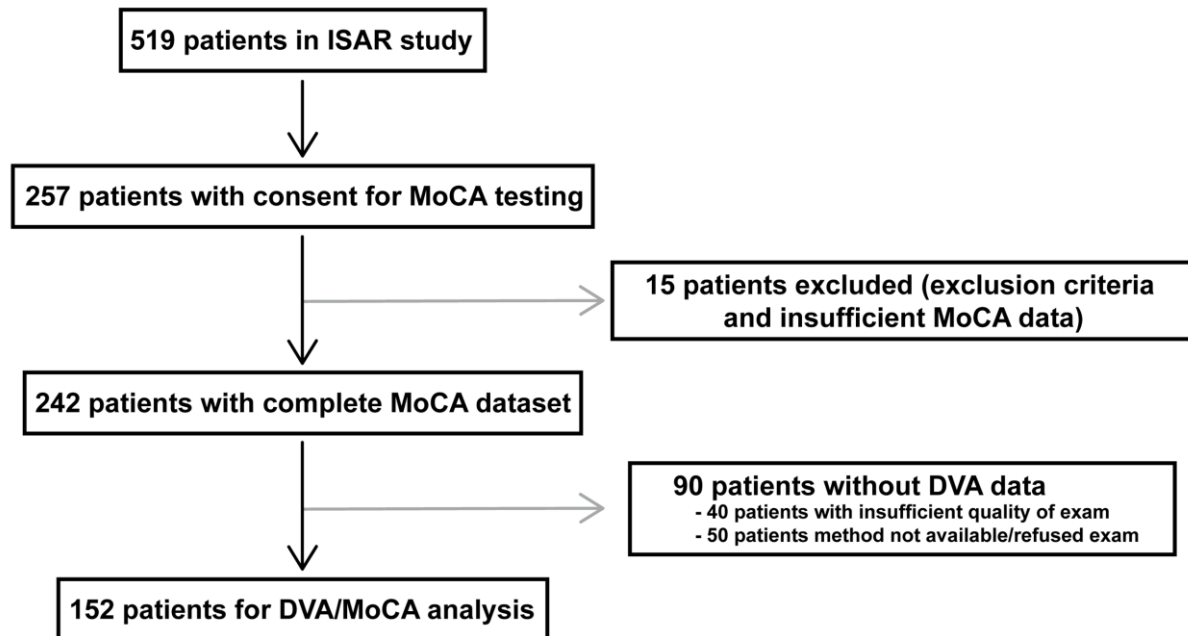


Figure legend:

Supplementary Figure 1: Flowchart – data acquisition process within the ISAR study

ISAR: rISk strAtification in end-stage renal disease, MoCA: Montreal Cognitive Assessment,

DVA: dynamic vessel analysis.

Supplementary Table 1: Comparison between included and excluded patients due to availability of DVA.

Demographics	MoCA + DVA data (n=152)	MoCA only (n=90)	p-value
Age (years), mean \pm SD	64.16 \pm 14.95	67.38 \pm 15.32	0.112
Sex m/f, n (%)	106 (69.7)/46 (30.3)	67(74.4)/23(25.6)	0.433
Educational level \leq 12 years, n (%)	96 (63.2)	54 (60.0)	0.625
Comorbidities			
Arterial hypertension, n (%)	144 (94.7)	85 (94.4)	0.922
Diabetes mellitus, n (%)	48 (31.6)	45 (50.0)	0.004
Hypercholesterolemia, n (%)	92 (60.5)	67 (74.4)	0.027
Nicotine abuse, n (%)	30 (19.7)	21 (23.3)	0.507
BMI, mean \pm SD	25.92 \pm 5.53	27.10 \pm 5.63	0.092
MoCA parameters			
MoCA score, mean	24.2 \pm 3.9	22.9 \pm 4.3	0.021
Visuospatial Executive, mean [†]	3.8	3.4	0.004
Naming, mean [†]	2.9	2.8	0.043
Attention, mean [†]	5.4	5.1	0.006
Language, mean [†]	1.8	1.7	0.441
Abstraction, mean [†]	1.6	1.6	0.535
Memory, mean [†]	2.7	2.4	0.233
Orientation, mean [†]	5.9	5.8	0.042
Dialysis data			
Dialysis vintage (months), mean \pm	63.72 \pm 63.97	62.28 \pm 70.22	0.739
Time on dialysis (hours), mean \pm SD	4.55 \pm 0.79	4.39 \pm 0.64	0.126
Ultrafiltration volume (liters), mean	2.29 \pm 1.07	2.02 \pm 1.18	0.132
Kt/V, mean \pm SD	1.54 \pm 0.38	1.50 \pm 0.33	0.876

m/f: male/female, CVD: cardiovascular disease, ESRD: end stage renal disease, DVA: dynamic vessel analysis.

[†] Calculation of SD was not performed because of lack of normally distributed data. Data displayed as mean to illustrate slight differences.

Supplementary Table 2: DVA parameters and their correlation to demographical and clinical features

	aMax		vMax	
	rho [†]	p-value	rho [†]	p-value
Demographics, comorbidities and hemodynamics				
Age	-0.109	0.183	-0.209	0.010
Arterial hypertension	-0.169	0.038	-0.130	0.113
Systolic arterial pressure, mmHg	0.022	0.793	0.027	0.738
Diastolic arterial pressure, mmHg	0.111	0.175	0.073	0.370
Mean arterial pressure, mmHg	0.078	0.338	0.054	0.509
Diabetes mellitus	-0.115	0.161	-0.092	0.263
Hypercholesterolemia	-0.076	0.353	-0.107	0.193
Nicotine abuse	-0.023	0.777	0.026	0.754
BMI, kg/m ²	0.016	0.842	-0.038	0.641
Dialysis-specific data				
Dialysis vintage (months on dialysis)	0.025	0.763	0.009	0.914
Ultrafiltration volume, liters	-0.080	0.344	-0.036	0.671
Laboratory parameters				
hsCRP, mg/dl	-0.037	0.655	-0.111	0.180
Serum calcium, mmol/l	-0.095	0.248	-0.027	0.741
Serum phosphate, mmol/l	-0.007	0.937	-0.016	0.845
Ca-PO ₄ product, mmol ² /l ²	-0.048	0.555	-0.026	0.751

† calculation with Spearman correlation, significant (p<0.05) correlations are marked bold.

BMI: Body mass index, hsCRP: high sensitivity C-reactive protein, Ca-PO₄: Calcium phosphate