

## SUPPLEMENTARY FIGURE AND TABLE

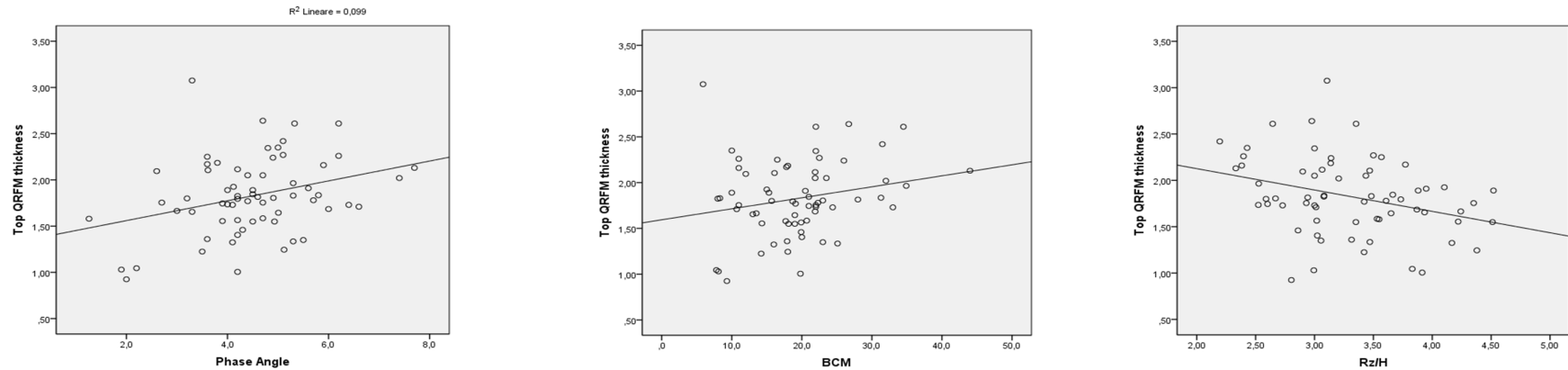
**Table S1:** Clinical, metabolic and nutritional data of hemodialysis patients stratified by BMI, albumin and MIS score.

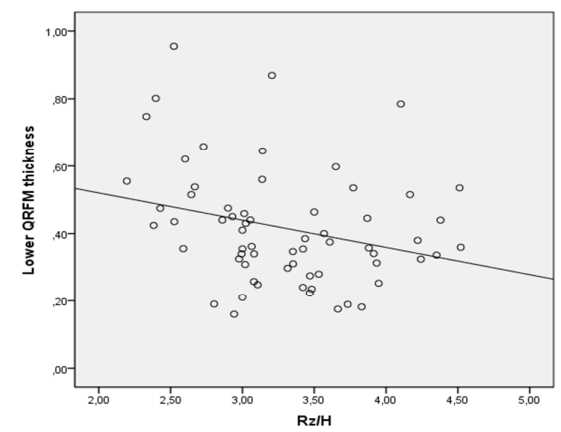
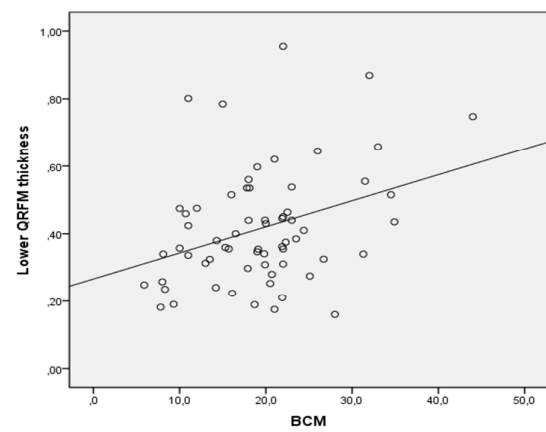
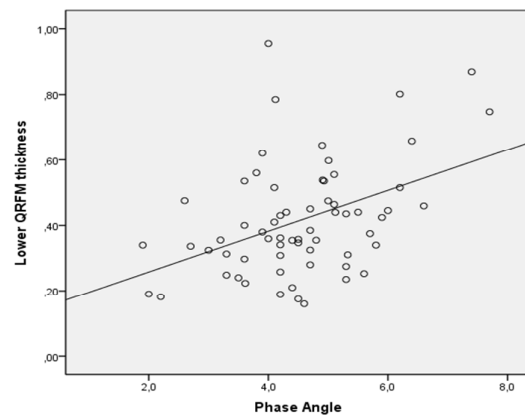
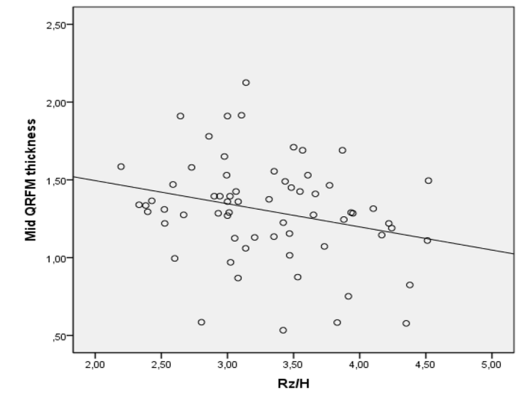
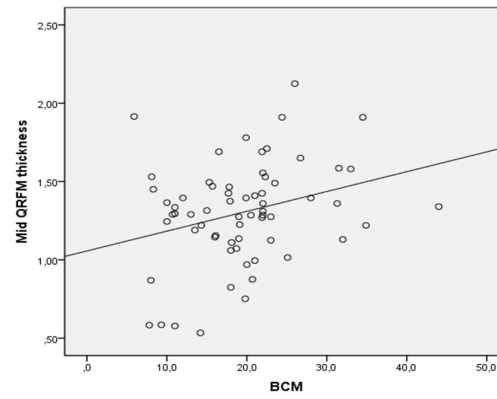
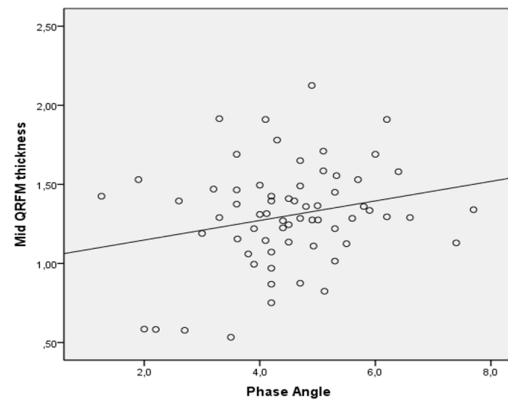
|                                      | BMI                                  |                                  |      | Albumin              |                      |        | MIS score             |                      |        |
|--------------------------------------|--------------------------------------|----------------------------------|------|----------------------|----------------------|--------|-----------------------|----------------------|--------|
|                                      | < 23<br>Kg/m <sup>2</sup><br>(n= 25) | > 23 Kg/m <sup>2</sup><br>(n=40) | p    | < 3.8 g/dl<br>(n=34) | > 3.8 g/dl<br>(n=31) | p      | < 6 score<br>(n=25)   | > 6 score<br>(n=40)  | p      |
| Age, years *                         | 68 (17)                              | 69 (11.8)                        | 0.42 | 70.8 (13.4)          | 67 (14)              | 0.27   | 64.9 (14)             | 71.5 (13)            | 0.62   |
| Sex, Males, n (%)                    | 45                                   | 40                               | 0.71 | 52.9                 | 29                   | 0.51   | 24                    | 52.5                 | 0.30   |
| Caucasian race, %                    | 100                                  | 97.5                             | 0.47 | 100                  | 96.7                 | 0.29   | 100                   | 97.5                 | 0.43   |
| Diabetes mellitus, %                 | 30                                   | 35                               | 0.11 | 26.4                 | 32                   | 0.61   | 24                    | 32.5                 | 0.46   |
| Previous Stroke, %                   | 20                                   | 25                               | 0.59 | 14.7                 | 25.8                 | 0.26   | 16                    | 22.5                 | 0.52   |
| COPD, %                              | 25                                   | 22.5                             | 0.49 | 11.7                 | 25.8                 | 0.15   | 20                    | 17.5                 | 0.80   |
| Cardiovascular diseases,<br>%        | 30                                   | 35                               | 0.71 | 41.2                 | 32                   | 0.46   | 24                    | 45                   | 0.88   |
| PAD, %                               | 30                                   | 32.5                             | 0.84 | 38.2                 | 22.5                 | 0.17   | 24                    | 35                   | 0.35   |
| Previous renal<br>transplantation, % | 10                                   | 50                               | 0.19 | 8.8                  | 12.9                 | 0.33   | 9                     | 10                   | 0.79   |
| History of cancer, %                 | 40                                   | 35                               | 0.70 | 29.4                 | 32                   | 0.80   | 32                    | 30                   | 0.87   |
| MIS < 6 score, %                     | 25                                   | 17                               | 0.06 | 14.7                 | 64.5                 | 0.37   | 100                   | 0                    | <0.001 |
| Systolic Blood Pressure,<br>mmHg*    | 139.8 (21)                           | 136.4 (23.7)                     | 0.60 | 134.5<br>(24.9)      | 142.3 (20)           | 0.17   | 140 (21.6)            | 137.2 (23.1)         | 0.63   |
| Diastolic Blood Pressure,<br>mmHg*   | 75.8 (14.9)                          | 72 (10.2)                        | 0.32 | 70.5 (9.9)           | 76.6 (13)            | 0.40   | 77.5 (10.5)           | 70.9 (12)            | 0.20   |
| Heart Rate, bpm*                     | 68.9 (7.9)                           | 68.8 (10.4)                      | 0.24 | 68.4 (8.4)           | 68.4 (10.5)          | 0.98   | 70.5 (8)              | 67 (10)              | 0.13   |
| KT/V*                                | 1.4 (0.27)                           | 1.3 (0.6)                        | 0.74 | 1.5 (0.26)           | 1.3 (0.24)           | <0.001 | 1.3 (0.24)            | 1.4 (0.27)           | 0.30   |
| Serum phosphorus,<br>mg/dl*          | 5.4 (2.1)                            | 6.2 (2.4)                        | 0.61 | 5.8 (2.9)            | 6.4 (1.9)            | 0.31   | 6.8 (2.3)             | 5.7 (2.5)            | 0.57   |
| Serum calcium, mg/dl*                | 9.3 (0.9)                            | 9.3 (0.73)                       | 0.23 | 9.3 (0.9)            | 9.3 (0.7)            | 0.91   | 9.3 (0.74)            | 9.3 (0.86)           | 0.87   |
| PTH, pg/ml**                         | 194 (68-<br>347)                     | 205.5 (120.2-<br>400.2)          | 0.74 | 180.5 (91-<br>300.5) | 308 (146-<br>465)    | 0.11   | 299 (159.5-<br>415.5) | 172.5 (85-<br>330.5) | 0.28   |
| Albumin, g/dL*                       | 3.6 (0.4)                            | 3.8 (0.4)                        | 0.10 | 3.4 (0.7)            | 4 (0.20)             | <0.001 | 4 (0.7)               | 3.5 (0.34)           | <0.001 |
| Ferritin, microg/L**                 | 250 (56-<br>510.5)                   | 295 (80.5-<br>501.2)             | 0.74 | 348 (115.2-<br>575)  | 218 (68-<br>425)     | 0.25   | 189 (50-<br>379.5)    | 373.5<br>(123.5-557) | 0.53   |

|                                            |                  |                     |      |                  |                  |      |                  |                  |        |
|--------------------------------------------|------------------|---------------------|------|------------------|------------------|------|------------------|------------------|--------|
| <b>Serum iron, microg/dL*</b>              | 48.9 (25.6)      | 62.8 (31.6)         | 0.76 | 54 (30)          | 61.8 (28.5)      | 0.30 | 56.8 (23.9)      | 58.3 (32.6)      | 0.82   |
| <b>Total Iron Binding Capacity, mg/dL*</b> | 217.8 (49.1)     | 243.9 (58.5)        | 0.14 | 226.7 (55.1)     | 247.2 (52.6)     | 0.17 | 260.65 (49.3)    | 219.8 (51.9)     | <0.001 |
| <b>Total Cholesterol, mg/dL*</b>           | 156.6 (48.9)     | 162.3 (104.8)       | 0.13 | 159.3 (48)       | 163.5 (47.5)     | 0.72 | 165.9 (47.3)     | 158.5 (47.8)     | 0.54   |
| <b>HDL Cholesterol, mg/dL*</b>             | 39.1 (10)        | 39 (11.5)           | 0.29 | 40.7 (13.6)      | 39 (7.9)         | 0.54 | 40.8 (10.9)      | 39.4 (11.5)      | 0.60   |
| <b>Triglycerides, mg/dL**</b>              | 121.5 (88-184.5) | 160.5 (113.2-234.7) | 0.32 | 140 (90.5-195)   | 143 (114-209)    | 0.71 | 143 (109.5-198)  | 139 (94.5-199)   | 0.94   |
| <b>C-reactive Protein, mg/dL**</b>         | 0.53 (0.26-1.19) | 0.46 (0.19-0.93)    | 0.52 | 0.47 (0.21-1.37) | 0.45 (0.17-0.79) | 0.06 | 0.44 (0.18-0.76) | 0.51 (0.19-1.31) | 0.12   |

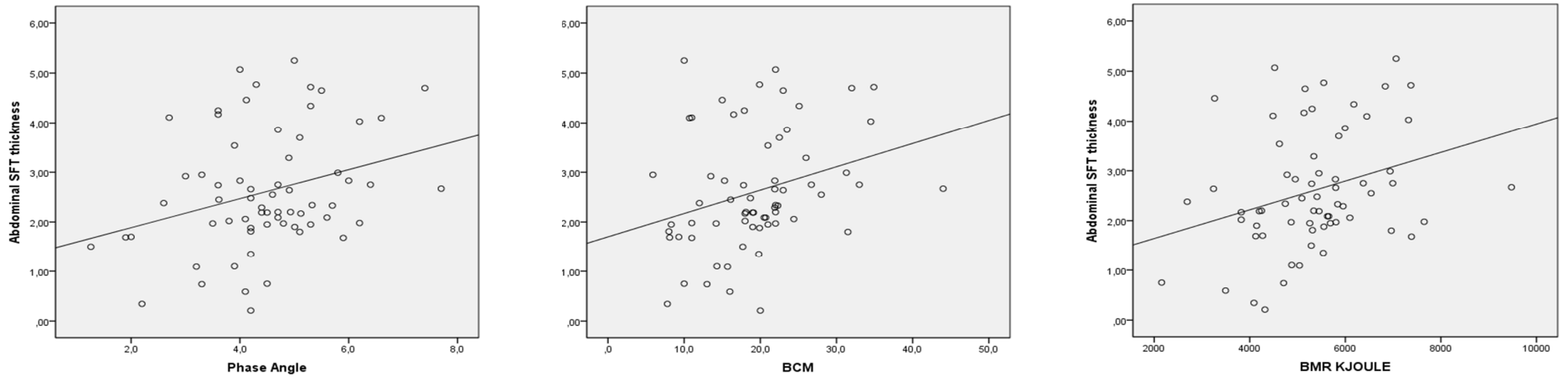
\*Data are expressed as means (standard deviations); \*\* Data are expressed as median and range Interquartile; ADPKD: Autosomal dominant polycystic kidney disease; COPD: chronic obstructive pulmonary disease; PAD: peripheral artery disease; PTH: parathormone.

**Fig. S1. Correlation between QRFM thickness and BIVA parameters**





**Fig. S2.** Correlation between Abdominal SFT thickness and BIVA parameters



**Table S2.** Correlation between BIVA parameters and nutritional indexes (MIS score, albumin and BMI) in HD patients.

|           | Dependent Variable: MIS Score |           |      |       |      |         |           | Dependent Variable: Albumin |      |           |        |      |         |       | Dependent Variable: BMI |       |       |        |      |           |        |   |           |      |
|-----------|-------------------------------|-----------|------|-------|------|---------|-----------|-----------------------------|------|-----------|--------|------|---------|-------|-------------------------|-------|-------|--------|------|-----------|--------|---|-----------|------|
| Model     | UC                            |           | SC   | t     | Sig. | 95 % CI |           | UC                          |      | SC        | t      | Sig. | 95 % CI |       | UC                      |       | SC    | t      | Sig. | 95 % CI   |        |   |           |      |
|           | B                             | St. Error | Beta |       |      | B       | St. Error | Beta                        | B    | St. Error |        |      | Beta    | B     | St. Error               | Beta  | B     |        |      | St. Error | Beta   | B | St. Error | Beta |
|           |                               |           |      |       |      |         |           |                             |      |           |        |      |         |       |                         |       |       |        |      |           |        |   |           |      |
| (Costant) | -3,156                        | 6,653     |      | -,474 | ,637 | -16,470 | 10,158    | 3,561                       | ,416 |           | 8,555  | ,000 | 2,728   | 4,393 | 36,301                  | 5,061 |       | 7,172  | ,000 | 26,177    | 46,424 |   |           |      |
| Rz/H      | 6,398                         | 1,807     | ,753 | 3,540 | ,001 | 2,782   | 10,014    | -,162                       | ,084 | -,237     | -1,933 | ,058 | -,329   | ,006  | -3,773                  | 1,018 | -,441 | -3,706 | ,000 | -5,809    | -1,736 |   |           |      |

|            |             |        |       |        |      |         |         |       |      |       |        |      |       |      |      |      |      |       |      |      |      |
|------------|-------------|--------|-------|--------|------|---------|---------|-------|------|-------|--------|------|-------|------|------|------|------|-------|------|------|------|
| Xc/H       | -<br>58,813 | 19,734 | -,831 | -2,980 | ,004 | -98,300 | -19,326 |       |      |       |        |      |       |      |      |      |      |       |      |      |      |
| BCM        |             |        |       |        |      |         |         |       |      |       |        |      |       |      | ,265 | ,091 | ,401 | 2,918 | ,005 | ,083 | ,446 |
| BMR KJOULE |             |        |       |        |      |         |         | ,000  | ,000 | ,606  | 2,491  | ,016 | ,000  | ,000 |      |      |      |       |      |      |      |
| BMR KCAL   |             |        |       |        |      |         |         | -,001 | ,000 | -,520 | -1,977 | ,053 | -,001 | ,000 |      |      |      |       |      |      |      |
| PA         |             |        |       |        |      |         |         | ,097  | ,048 | ,303  | 2,010  | ,049 | ,000  | ,194 |      |      |      |       |      |      |      |

BMI: Body Mass Index; BCM: Body cell mass; BMR: basic metabolic rate; ; CI: Confidence Interval; H: height; LB: Lower Bound; MIS: Malnutrition Inflammation Score; PA: Phase Angle; Rz: resistance; SC: Standardized Coefficients; UB: Upper Bound; UC: Unstandardized Coefficients; Xc: reactance.