**Supplemental materials**

**Supplemental Figure 1:** Participant flow chart.

**Supplemental Figure 2:** The association between dietary energy intake by actual body weight and risk for all-cause mortality (A) and CVD mortality (B).

**Supplemental Figure 3:** The association between dietary energy intake by ideal body weight and risk for all-cause mortality (A) and CVD mortality (B).

**Supplemental Table1:** Univariate and multivariate Cox regression models of all-cause mortality and CVD mortality for DEI by ideal body weight groups.

**Supplemental Table 2:** Univariate and multivariate Cox regression models of all-cause mortality and CVD mortality for DEI by ideal body weight groups.

**1302 maintenance hemodialysis patients enrolled in the cohort （January 2014-December 2015）**

**Excluded(N=173)**

1. **Enrolled in the cohort twice (N=2)**
2. **Peritoneal dialysis（N=8）**
3. **Dialysis duration <3 months**

**(N=163)**

**1129 meet the inclusion criterion**

**Excluded(N=90)**

1. **Kt/V missing (n=68)**
2. **Other covariates missing (n=22)**

**1039 included in the final analysis**

**Supplemental Figure 1:** Participant flow chart.

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**Supplemental Figure 2:** The association between dietary energy intake by actual body weight and risk for all-cause mortality (A) and CVD mortality (B)\*

\*Adjusted for dialysis center, age, sex, smoking, alcohol use, physical activity, BMI, albumin, triglycerides, total cholesterol, C-reactive protein, serum calcium, serum phosphate, [hemoglobin](javascript:;), dialysis vintage, Kt/V, diabetes, hypertension and history of CVD.

ABW, actual body weight; CVD, cardiovascular disease; DEI, dietary energy intake.

**Supplemental Figure 3:** The association between dietary energy intake by ideal body weight# and risk for all-cause mortality (A) and CVD mortality (B)\*

\*Adjusted for dialysis center, age, sex, smoking, alcohol use, physical activity, BMI, albumin, triglycerides, total cholesterol, C-reactive protein, serum calcium, serum phosphate, [hemoglobin](javascript:;), dialysis vintage, Kt/V, diabetes, hypertension and history of CVD.

IBW, ideal body weight; CVD, cardiovascular disease; DEI, dietary energy intake.

# Ideal body weight was defined as a body mass index of 22 kg/m2.

**Supplemental Table 1. Univariate and multivariate Cox regression models of all-cause mortality and CVD mortality for DEI by ideal body weight groups**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| DEI, Kcal/kg IBW /d | No. of events (%) | Crude | |  | Adjusted\* | |
| HR(95%CI) | *P* |  | HR(95%CI) | *P* |
| ***All-cause mortality*** | | | | | | |
| Categories | |  |  |  |  |  |
| <30 | 146(25.3) | 1.31(0.88,1.95) | 0.187 |  | 2.18 (1.32, 3.61) | 0.003 |
| 30-<35 | 38(17.1) | 0.88(0.54,1.42) | 0.592 |  | 1.37 (0.82, 2.30) | 0.225 |
| 35-<40 | 29(18.8) | 1.0(Ref) | -- |  | 1.0(Ref) | -- |
| ≥40 | 17(19.8) | 1.12(0.61,2.03) | 0.718 |  | 1.69 (0.90, 3.19) | 0.103 |
| Categories | |  |  |  |  |  |
| <30 | 146(25.3) | 1.41(1.06,1.89) | 0.019 |  | 1.78 (1.22, 2.59) | 0.003 |
| 30-<40 | 67(17.8) | 1.0(Ref) | -- |  | 1.0(Ref) | -- |
| ≥40 | 17(19.8) | 1.21(0.71,20.5) | 0.49 |  | 1.45 (0.82, 2.56) | 0.204 |
| ***CVD-related mortality*** | |  |  |  |  |  |
| Categories | |  |  |  |  |  |
| <30 | 92(15.9%) | 1.34(0.81, 2.23) | 0.253 |  | 1.96 (1.03, 3.74) | 0.042 |
| 30-<35 | 18(7.7%) | 0.64(0.33, 1.24) | 0.182 |  | 0.97 (0.48, 1.96) | 0.939 |
| 35-<40 | 17(11.7%) | 1.0(Ref) | -- |  | 1.0(Ref) | -- |
| ≥40 | 13(15.1%) | 1.38(0.67, 2.81) | 0.381 |  | 2.38 (1.12, 5.08) | 0.024 |
| Categories | |  |  |  |  |  |
| <30 | 92(15.9%) | 1.72(1.16, 2.53) | 0.007 |  | 1.99 (1.20, 3.29) | 0.007 |
| 30-<40 | 35(9.3%) | 1.0(Ref) | -- |  | 1.0(Ref) | -- |
| ≥40 | 13(15.1%) | 1.76(0.93, 3.32) | 0.083 |  | 2.42 (1.22, 4.78) | 0.011 |

\* Adjusted for dialysis center, age, sex, smoking, alcohol use, physical activity, BMI, albumin, triglycerides, total cholesterol, C-reactive protein, calcium, phosphate, [hemoglobin](javascript:;), dialysis vintage, Kt/V, diabetes, hypertension, history of CVD and dietary protein intake normalized to ideal body weight.

Abbreviations: CI, confidence interval; CVD, cardiovascular diseases; DEI, dietary energy intake; HR, hazard ratio; IBW, ideal body weight.

**Supplemental Table 2:** Univariate and multivariate Cox regression models of all-cause mortality and CVD-related mortality for DEI by ideal body weight groups

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| DEI, Kcal/kg IBW /d | No. of events (%) | Crude | |  | Adjusted\* | |
| HR(95%CI) | *P* |  | HR(95%CI) | *P* |
| ***All-cause mortality*** |  |  |  |  |  |  |
| Categories |  |  |  |  |  |  |
| <30 | 115 (26.1) | 1.27 (0.82, 1.95) | 0.283 |  | 1.69 (1.05, 2.72) | 0.031 |
| 30-35 | 28 (17.0) | 0.80 (0.47, 1.37) | 0.421 |  | 1.13 (0.64, 2.01) | 0.674 |
| 35-40 | 25 (20.5) | 1.0(Ref) | -- |  | 1.0(Ref) | -- |
| ≥40 | 14 (19.2) | 0.97 (0.50, 1.87) | 0.927 |  | 1.57 (0.79, 3.12) | 0.195 |
| Categories |  |  |  |  |  |  |
| <30 | 115 (26.1) | 1.43 (1.04, 1.98) | 0.030 |  | 1.58 (1.11, 2.23) | 0.010 |
| 30-40 | 53 (18.5) | 1.0(Ref) | -- |  | 1.0(Ref) | -- |
| ≥40 | 14 (19.2) | 1.10 (0.61, 1.98) | 0.759 |  | 1.48 (0.80, 2.73) | 0.214 |
| ***CVD-related mortality*** |  |  |  |  |  |  |
| Categories |  |  |  |  |  |  |
| <30 | 75 (17.0) | 1.30 (0.76, 2.23) | 0.340 |  | 1.77 (0.97, 3.22) | 0.063 |
| 30-35 | 13 ( 7.9) | 0.59 (0.28, 1.22) | 0.151 |  | 0.85 (0.39, 1.85) | 0.685 |
| 35-40 | 16 (13.1) | 1.0(Ref) | -- |  | 1.0(Ref) | -- |
| ≥40 | 10 (13.7) | 1.09 (0.49, 2.39) | 0.839 |  | 1.92 (0.83, 4.42) | 0.128 |
| Categories |  |  |  |  |  |  |
| <30 | 75 (17.0) | 1.71 (1.12, 2.63) | 0.013 |  | 1.92 (1.22, 3.03) | 0.005 |
| 30-40 | 29 (10.1) | 1.0(Ref) | -- |  | 1.0(Ref) | -- |
| ≥40 | 10 (13.7) | 1.43 (0.70, 2.94) | 0.329 |  | 2.07 (0.97, 4.41) | 0.060 |

\* Adjusted for dialysis center, age, sex, smoking, alcohol use, physical activity, BMI, albumin, triglycerides, total cholesterol, C-reactive protein, calcium, phosphate, [hemoglobin](javascript:;), dialysis vintage, Kt/V, diabetes, hypertension, history of CVD and dietary protein intake normalized to ideal body weight.

Abbreviations: CI, confidence interval; CVD, cardiovascular diseases; DEI, dietary energy intake; HR, hazard ratio; IBW, ideal body weight.