**Supplementary Table 1.** Stratified analyses for adjusted odds ratio (OR) and 95% confidence interval (CI) for the association between total fatty acids, total saturated fatty acids, total unsaturated fatty acids intake and the prevalence of depressive symptoms.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Characteristics** | **Dietary Fatty acids intake** | | | | | | | | | | | |
| **Total FA(g/d)** | | | | **Total SFA (g/d)** | | | | **Total UFA (g/d)** | | | |
| **T1** | **T2** | **T3** | ***Pinteraction*** | **T1** | **T2** | **T3** | ***Pinteraction*** | **T1** | **T2** | **T3** | ***Pinteraction*** |
| **Age (years)** |  |  |  | 0.91 |  |  |  | 0.93 |  |  |  | 0.77 |
| ≤ 60 (n=327) | 1.00 (Ref) | 1.61 (0.83-3.17) | 1.07 (0.55-2.09) |  | 1.00 (Ref) | 1.46 (0.77-2.80) | 1.61 (0.82-3.18) |  | 1.00 (Ref) | 1.34 (0.68-2.64) | 1.10 (0.56-2.17) |  |
| > 60 (n=355) | 1.00 (Ref) | 0.99 (0.52-1.90) | 2.24 (1.24-4.14) |  | 1.00 (Ref) | 1.28 (0.66-2.50) | 2.06 (1.13-3.80) |  | 1.00 (Ref) | 1.47 (0.79-2.76) | 1.97 (1.08-3.61) |  |
| **Sex** |  |  |  | 0.90 |  |  |  | 0.85 |  |  |  | 0.97 |
| Male (n=420) | 1.00 (Ref) | 1.55 (0.87-2.79) | 1.50 (0.86-2.61) |  | 1.00 (Ref) | 1.99 (1.12-3.58) | 2.11 (1.20-3.76) |  | 1.00 (Ref) | 1.75 (0.99-3.13) | 1.46 (0.83-2.60) |  |
| Female (n=262) | 1.00 (Ref) | 0.93 (0.42-2.06) | 1.64 (0.79-3.49) |  | 1.00 (Ref) | 0.65 (0.29-1.45) | 1.39 (0.67-2.92) |  | 1.00 (Ref) | 0.93 (0.43-1.98) | 1.33 (0.65-2.72) |  |
| **Diabetes** |  |  |  | 0.76 |  |  |  | 0.68 |  |  |  | 0.84 |
| Yes (n=283) | 1.00 (Ref) | 0.71 (0.33-1.50) | 1.82 (0.93-3.60) |  | 1.00 (Ref) | 0.73 (0.34-1.55) | 1.97 (1.01-3.88) |  | 1.00 (Ref) | 1.86 (0.93-3.76) | 1.63 (0.81-3.32) |  |
| No (n=399) | 1.00 (Ref) | 2.12 (1.15-3.99) | 1.76 (0.97-3.24) |  | 1.00 (Ref) | 2.49 (1.33-4.77) | 2.14 (1.16-4.04) |  | 1.00 (Ref) | 1.37 (0.75-2.54) | 1.53 (0.86-2.75) |  |
| **CVD** |  |  |  | 0.42 |  |  |  | 0.40 |  |  |  | 0.36 |
| Yes (n=420) | 1.00 (Ref) | 0.97 (0.53-1.77) | 1.50 (0.86-2.66) |  | 1.00 (Ref) | 1.02 (0.57-1.84) | 1.52 (0.85-2.71) |  | 1.00 (Ref) | 1.29 (0.72-2.35) | 1.53 (0.85-2.76) |  |
| No (n=262) | 1.00 (Ref) | 1.99 (0.95-4.24) | 1.76 (0.88-3.56) |  | 1.00 (Ref) | 2.49 (1.16-5.48) | 2.58 (1.29-5.32) |  | 1.00 (Ref) | 1.81 (0.89-3.72) | 1.52 (0.77-3.01) |  |
| **BMI (kg/m2)** |  |  |  | 0.55 |  |  |  | 0.50 |  |  |  | 0.32 |
| < 24 (n=361) | 1.00 (Ref) | 1.34 (0.70-2.59) | 2.31 (1.26-4.32) |  | 1.00 (Ref) | 1.61 (0.85-3.12) | 2.74 (1.46-5.24) |  | 1.00 (Ref) | 1.90 (1.00-3.66) | 2.24 (1.20-4.25) |  |
| ≥ 24 (n=321) | 1.00 (Ref) | 1.27 (0.65-2.48) | 1.08 (0.57-2.05) |  | 1.00 (Ref) | 1.23 (0.62-2.46) | 1.30 (0.69-2.46) |  | 1.00 (Ref) | 1.11 (0.58-2.12) | 0.97 (0.51-1.86) |  |
| **Dialysis age (months)** |  |  |  | 0.84 |  |  |  | 0.82 |  |  |  | 0.36 |
| < 36 (n=272) | 1.00 (Ref) | 0.85 (0.41-1.78) | 1.55 (0.75-3.23) |  | 1.00 (Ref) | 1.32 (0.64-2.76) | 1.32 (0.63-2.77) |  | 1.00 (Ref) | 1.52 (0.75-3.11) | 1.60 (0.75-3.41) |  |
| ≥ 36 (n=410) | 1.00 (Ref) | 1.62 (0.89-2.97) | 1.72 (0.99-3.02) |  | 1.00 (Ref) | 1.48 (0.82-2.72) | 2.24 (1.28-3.97) |  | 1.00 (Ref) | 1.44 (0.80-2.60) | 1.44 (0.83-2.51) |  |

Abbreviations: BMI: body mass index; CVD: cardiovascular disease; T, tertiles; Ref, reference; FA, fatty acids; SFA: saturated fatty acids; UFA: unsaturated fatty acids.

Adjusted for gender, age, time on dialysis, body mass index, physical activity, smoking status, drinking consumption, education level, marital status, anxiety state, comorbidities and total energy intake.

\*Energy adjusted according to the residual method.

**Supplementary Table 2.** Stratified analyses for adjusted odds ratio (OR) and 95% confidence interval (CI) for the association between total monounsaturated fatty acids, total polyunsaturated fatty acids intake and the prevalence of depressive symptoms.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Characteristics** | **Dietary Fatty acids intake** | | | | | | | |
| **Total MUFA(g/d)** | | | | **Total PUFA (g/d)** | | | |
| **T1** | **T2** | **T3** | ***Pinteraction*** | **T1** | **T2** | **T3** | ***Pinteraction*** |
| **Age (years)** |  |  |  | 0.90 |  |  |  | 0.28 |
| ≤ 60 (n=327) | 1.00 (Ref) | 1.20 (0.62-2.33) | 1.01 (0.53-1.93) |  | 1.00 (Ref) | 0.93 (0.47-1.84) | 1.21 (0.63-2.36) |  |
| > 60 (n=355) | 1.00 (Ref) | 1.12 (0.60-2.12) | 1.94 (1.06-3.57) |  | 1.00 (Ref) | 1.20 (0.65-2.20) | 1.30 (0.72-2.36) |  |
| **Sex** |  |  |  | 0.88 |  |  |  | 0.95 |
| Male (n=420) | 1.00 (Ref) | 1.34 (0.76-2.38) | 1.38 (0.80-2.40) |  | 1.00 (Ref) | 1.79 (1.03-3.16) | 1.22 (0.69-2.16) |  |
| Female (n=262) | 1.00 (Ref) | 1.01 (0.47-2.17) | 1.38 (0.67-2.86) |  | 1.00 (Ref) | 0.65 (0.30-1.39) | 1.01 (0.49-2.10) |  |
| **Diabetes** |  |  |  | 0.80 |  |  |  | 0.99 |
| Yes (n=283) | 1.00 (Ref) | 0.87 (0.43-1.76) | 1.36 (0.69-2.70) |  | 1.00 (Ref) | 1.41 (0.71-2.83) | 1.18 (0.59-2.37) |  |
| No (n=399) | 1.00 (Ref) | 1.60 (0.87-2.95) | 1.60 (0.91-2.87) |  | 1.00 (Ref) | 1.30 (0.71-2.37) | 1.44 (0.80-2.62) |  |
| **CVD** |  |  |  | 0.45 |  |  |  | 0.27 |
| Yes (n=420) | 1.00 (Ref) | 0.77 (0.43-1.40) | 1.38 (0.80-2.43) |  | 1.00 (Ref) | 1.17 (0.65-2.12) | 1.61 (0.90-2.89) |  |
| No (n=262) | 1.00 (Ref) | 2.26 (1.11-4.72) | 1.52 (0.76-3.11) |  | 1.00 (Ref) | 1.16 (0.57-2.37) | 1.19 (0.59-2.38) |  |
| **BMI (kg/m2)** |  |  |  | 0.57 |  |  |  | 0.12 |
| < 24 (n=361) | 1.00 (Ref) | 1.79 (0.95-3.42) | 2.04 (1.11-3.82) |  | 1.00 (Ref) | 1.38 (0.74-2.57) | 1.76 (0.96-3.26) |  |
| ≥ 24 (n=321) | 1.00 (Ref) | 1.00 (0.51-1.96) | 1.00 (0.52-1.92) |  | 1.00 (Ref) | 0.90 (0.46-1.77) | 1.02 (0.53-1.97) |  |
| **Dialysis age (months)** |  |  |  | 0.82 |  |  |  | 0.02 |
| < 36 (n=272) | 1.00 (Ref) | 1.07 (0.51-2.25) | 1.59 (0.79-3.28) |  | 1.00 (Ref) | 0.97 (0.46-2.07) | 1.20 (0.58-2.52) |  |
| ≥ 36 (n=410) | 1.00 (Ref) | 1.43 (0.81-2.55) | 1.36 (0.78-2.37) |  | 1.00 (Ref) | 1.26 (0.72-2.22) | 1.30 (0.75-2.27) |  |

Abbreviations: BMI: body mass index; CVD: cardiovascular disease; T, tertiles; Ref, reference; MUFA: monounsaturated fatty acids; PUFA: polyunsaturated fatty acids.

Adjusted for gender, age, time on dialysis, body mass index, physical activity, smoking status, drinking consumption, education level, marital status, anxiety state, comorbidities and total energy intake.

\*Energy adjusted according to the residual method.

**Supplementary Table 3.** Stratified analyses for adjusted odds ratio (OR) and 95% confidence interval (CI) for the association between total n-3 fatty acids, total n-6 fatty acids intake and the prevalence of depressive symptoms.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Characteristics** | **Dietary Fatty acids intake** | | | | | | | |
| **Total n-3 FA (g/d)** | | | | **Total n-6 FA (g/d)** | | | |
| **T1** | **T2** | **T3** | ***Pinteraction*** | **T1** | **T2** | **T3** | ***Pinteraction*** |
| **Age (years)** |  |  |  | 0.71 |  |  |  | 0.20 |
| ≤ 60 (n=327) | 1.00 (Ref) | 1.20 (0.61-2.37) | 1.05 (0.54-2.03) |  | 1.00 (Ref) | 1.58 (0.79-3.20) | 1.55 (0.79-3.09) |  |
| > 60 (n=355) | 1.00 (Ref) | 0.76 (0.42-1.39) | 1.28 (0.71-2.29) |  | 1.00 (Ref) | 1.00 (0.54-1.86) | 1.32 (0.72-2.42) |  |
| **Sex** |  |  |  | 0.81 |  |  |  | 0.94 |
| Male (n=420) | 1.00 (Ref) | 1.31 (0.76-2.29) | 1.26 (0.72-2.21) |  | 1.00 (Ref) | 1.78 (1.00-3.21) | 1.43 (0.82-2.51) |  |
| Female (n=262) | 1.00 (Ref) | 0.50 (0.23-1.08) | 0.86 (0.43-1.74) |  | 1.00 (Ref) | 0.71 (0.33-1.53) | 1.35 (0.63-2.89) |  |
| **Diabetes** |  |  |  | 0.92 |  |  |  | 0.92 |
| Yes (n=283) | 1.00 (Ref) | 1.02 (0.52-1.99) | 1.39 (0.70-2.77) |  | 1.00 (Ref) | 1.10 (0.56-2.20) | 1.26 (0.62-2.56) |  |
| No (n=399) | 1.00 (Ref) | 0.93 (0.51-1.68) | 1.08 (0.61-1.91) |  | 1.00 (Ref) | 1.34 (0.72-2.51) | 1.71 (0.95-3.10) |  |
| **CVD** |  |  |  | 0.51 |  |  |  | 0.23 |
| Yes (n=420) | 1.00 (Ref) | 1.22 (0.68-2.20) | 1.57 (0.89-2.79) |  | 1.00 (Ref) | 1.07 (0.58-1.98) | 1.56 (0.87-2.81) |  |
| No (n=262) | 1.00 (Ref) | 0.71 (0.36-1.40) | 0.79 (0.40-1.55) |  | 1.00 (Ref) | 1.54 (0.78-3.11) | 1.35 (0.67-2.76) |  |
| **BMI (kg/m2)** |  |  |  | 0.70 |  |  |  | 0.08 |
| < 24 (n=361) | 1.00 (Ref) | 0.99 (0.55-1.81) | 1.31 (0.73-2.38) |  | 1.00 (Ref) | 1.73 (0.93-3.25) | 2.00 (1.09-3.74) |  |
| ≥ 24 (n=321) | 1.00 (Ref) | 0.99 (0.51-1.93) | 0.99 (0.52-1.88) |  | 1.00 (Ref) | 0.81 (0.41-1.62) | 0.96 (0.49-1.89) |  |
| **Dialysis age (months)** |  |  |  | 0.05 |  |  |  | 0.03 |
| < 36 (n=272) | 1.00 (Ref) | 0.84 (0.41-1.69) | 1.03 (0.50-2.11) |  | 1.00 (Ref) | 0.83 (0.38-1.77) | 1.20 (0.59-2.43) |  |
| ≥ 36 (n=410) | 1.00 (Ref) | 1.17 (0.67-2.06) | 1.29 (0.75-2.22) |  | 1.00 (Ref) | 1.68 (0.94-3.03) | 1.72 (0.97-3.12) |  |

Abbreviations: BMI: body mass index; CVD: cardiovascular disease; T, tertiles; Ref, reference; FA, fatty acids.

Adjusted for gender, age, time on dialysis, body mass index, physical activity, smoking status, drinking consumption, education level, marital status, anxiety state, comorbidities and total energy intake.

\*Energy adjusted according to the residual method.

**Supplementary Table 4.** Adjusted odds ratio (OR) and 95% confidence interval (CI) for the association between dietary fatty acids intake and the prevalence of depressive symptoms among patients with no change in dietary behavior in the last year.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variables** | **PHQ-9<5 (n=278)** | | **PHQ-9≥5 (n=172)** | **Model 3c** |
| **Fatty acids from all sources** |  | |  |  |
| **Total FA**(g/d) |  | |  |  |
| T1 (<25.20) | 102 | 47 | | 1.00 (Ref) |
| T2 (25.20 to <32.29) | 84 | | 66 | 2.11 (1.21-3.72) |
| T3 (≥32.29) | 92 | | 59 | 1.53 (0.90-2.61) |
| *P* for trend |  | |  | 0.16 |
| Per 1-SD increase |  | |  | 1.18 (0.96-1.46) |
| **Total SFA** (g/d) |  | |  |  |
| T1 (<10) | 103 | | 46 | 1.00 (Ref) |
| T2 (10 to <13.36) | 85 | | 65 | 2.00 (1.15-3.54) |
| T3 (≥13.36) | 90 | | 61 | 2.05 (1.20-3.54) |
| *P* for trend |  | |  | 0.01 |
| Per 1-SD increase |  | |  | 1.21 (0.98-1.49) |
| **Total UFA** (g/d) |  | |  |  |
| T1 (<14.65) | 100 | | 49 | 1.00 (Ref) |
| T2 (14.65 to <18.33) | 87 | | 63 | 1.69 (0.98-2.94) |
| T3 (≥18.33) | 91 | | 60 | 1.35 (0.80-2.30) |
| *P* for trend |  | |  | 0.32 |
| Per 1-SD increase |  | |  | 1.13 (0.91-1.40) |
| **Unsaturated fatty acid** |  | |  |  |
| Total MUFA(g/d) |  | |  |  |
| T1 (<9.97) | 96 | | 53 | 1.00 (Ref) |
| T2 (9.97 to <12.75) | 90 | | 60 | 1.39 (0.81-2.40) |
| T3 (≥12.75) | 92 | | 59 | 1.24 (0.74-2.09) |
| *P* for trend |  | |  | 0.46 |
| Per 1-SD increase |  | |  | 1.15 (0.93-1.42) |
| Total PUFA (g/d) |  | |  |  |
| T1 (<4.25) | 102 | | 47 | 1.00 (Ref) |
| T2 (4.25 to <5.27) | 89 | | 61 | 1.57 (0.92-2.72) |
| T3 (≥5.27) | 87 | | 64 | 1.39 (0.81-2.39) |
| *P* for trend |  | |  | 0.29 |
| Per 1-SD increase |  | |  | 1.03 (0.82-1.29) |
| **n-3 fatty acids** |  | |  |  |
| Total n-3 FAs(g/d) |  | |  |  |
| T1 (<0.53) | 96 | | 53 | 1.00 (Ref) |
| T2 (0.53 to <0.70) | 94 | | 56 | 1.22 (0.72-2.08) |
| T3 (≥0.70) | 88 | | 63 | 1.20 (0.71-2.03) |
| *P* for trend |  | |  | 0.52 |
| Per 1-SD increase |  | |  | 1.00 (0.81-1.24) |
| α-Linolenic acid(g/d) |  | |  |  |
| T1 (<0.46) | 102 | | 47 | 1.00 (Ref) |
| T2 (0.46 to <0.61) | 82 | | 68 | 1.77 (1.04-3.04) |
| T3 (≥0.61) | 94 | | 57 | 1.10 (0.64-1.89) |
| *P* for trend |  | |  | 0.86 |
| Per 1-SD increase |  | |  | 0.98 (0.79-1.21) |
| EPA(g/d) |  | |  |  |
| T1 (<0.02) | 98 | | 51 | 1.00 (Ref) |
| T2 (0.02 to <0.05) | 89 | | 61 | 1.53 (0.90-2.62) |
| T3 (≥0.05) | 91 | | 60 | 1.17 (0.69-1.98) |
| *P* for trend |  | |  | 0.74 |
| Per 1-SD increase |  | |  | 1.06 (0.86-1.31) |
| DHA(g/d) |  | |  |  |
| T1 (<0.01) | 99 | | 50 | 1.00 (Ref) |
| T2 (0.01 to <0.04) | 89 | | 61 | 1.49 (0.86-2.60) |
| T3 (≥0.04) | 90 | | 61 | 1.24 (0.73-2.11) |
| *P* for trend |  | |  | 0.58 |
| Per 1-SD increase |  | |  | 1.06 (0.86-1.30) |
| DPA(g/d) |  | |  |  |
| T1 (<0.003) | 98 | | 51 | 1.00 (Ref) |
| T2 (0.003 to <0.006) | 88 | | 62 | 1.62 (0.93-2.83) |
| T3 (≥0.006) | 92 | | 59 | 1.27 (0.75-2.16) |
| *P* for trend |  | |  | 0.53 |
| Per 1-SD increase |  | |  | 1.06 (0.86-1.30) |
| **n-6 fatty acids** |  | |  |  |
| Total n-6 FAs(g/d) |  | |  |  |
| T1 (<3.6) | 98 | | 51 | 1.00 (Ref) |
| T2 (3.6 to <4.47) | 93 | | 57 | 1.13 (0.65-1.95) |
| T3 (≥4.47) | 87 | | 64 | 1.24 (0.73-2.11) |
| *P* for trend |  | |  | 0.43 |
| Per 1-SD increase |  | |  | 1.02 (0.82-1.28) |
| Linoleic acid (g/d) |  | |  |  |
| T1 (<3.58) | 99 | | 50 | 1.00 (Ref) |
| T2 (3.58 to <4.44) | 93 | | 57 | 1.17 (0.68-2.02) |
| T3 (≥4.44) | 86 | | 65 | 1.32 (0.78-2.25) |
| *P* for trend |  | |  | 0.31 |
| Per 1-SD increase |  | |  | 1.02 (0.82-1.28) |
| Arachidonic acid (g/d) |  | |  |  |
| T1 (<0.02) | 95 | | 54 | 1.00 (Ref) |
| T2 (0.02 to <0.03) | 95 | | 55 | 1.17 (0.68-1.99) |
| T3 (≥0.03) | 88 | | 63 | 1.34 (0.80-2.26) |
| *P* for trend |  | |  | 0.28 |
| Per 1-SD increase |  | |  | 1.10 (0.89-1.35) |

Abbreviations: T, tertiles; Ref, reference; SD: standard deviation; PHQ-9: Patient Health Questionnaire-9; DPA: docosapentaenoic acid; DHA: docosahexaenoic acid; EPA: eicosapentaenoic acid; FA, fatty acids; MUFA: monounsaturated fatty acids; PUFA: polyunsaturated fatty acids; SFA: saturated fatty acids; UFA: unsaturated fatty acids.

\*Energy adjusted according to the residual method.

cModel 3: adjusted for gender, age, dialysis age, body mass index, physical activity, smoking status, drinking consumption, education level, marital status, anxiety state, comorbidities and total energy intake.