

Supp Table S1. Changes in the number of GI and EI symptoms considering follow-ups at T1 and T2

| | | T1-T0 (n=93) | | T2-T0 (n=55) | T1-T0 (n=55) | T2-T1 (n=55) |
|-------------|---------------|------------------|---------------|------------------|------------------|------------------|
| | | n° patients (%) | | n° patients (%) | n° patients (%) | n° patients (%) |
| GI symptoms | reduction | 68 (73,1) | reduction | 37 (67,3) | 42 (76,4) | 9 (16,4) |
| | no difference | 17 (18,3) | no difference | 13 (23,6) | 8 (14,5) | 29 (52,7) |
| | increase | 8 (8,6) | increase | 5 (9,1) | 5 (9,1) | 17 (30,9) |
| EI symptoms | reduction | 75 (80,7) | reduction | 45 (81,8) | 44 (80,0) | 16 (29,1) |
| | no difference | 14 (15,1) | no difference | 9 (16,4) | 9 (16,4) | 28 (50,9) |
| | increase | 4 (4,2) | increase | 1 (1,8) | 2 (3,6) | 11 (20,0) |

Supp Table S2. Stratified analysis considering the type of CeD and adherence to a GFD (T0-T1)

| | Classical (n=46) | | | | | | p-value* |
|--------|----------------------------|--------|--------------------------------------|-------------|--------|--------------------------------------|--------------|
| | T0 | | | T1 | | | |
| | min-max | median | 1 st -3 rd qu. | min-max | median | 1 st -3 rd qu. | |
| BDI | 0.0-38.0 | 11.0 | 5.0-18.0 | 0.0-29.0 | 6.0 | 3.0-15.0 | 0.009 |
| STAY 1 | 21.0-75.0 | 42.0 | 35.0-52.0 | 21.0-65.0 | 34.0 | 29.0-45.5 | 0.008 |
| STAY 2 | 23.0-74.0 | 44.0 | 37.0-50.0 | 20.0-72.0 | 38.0 | 32.5-50.5 | 0.005 |
| HADS-A | 0.0-20.0 | 8.0 | 5.0-12.8 | 1.0-19.0 | 6.0 | 3.3-10.0 | 0.014 |
| HADS-D | 2.0-20.0 | 6.0 | 4.0-9.0 | 1.0-14.0 | 5.0 | 3.0-8.0 | 0.166 |
| SF36 | 35.5-742.0 | 386.8 | 280.5-542.0 | 152.0-764.0 | 579.0 | 390.8-700.2 | 0.002 |
| | Non-classical (n=47) | | | | | | p-value* |
| | T0 | | | T1 | | | |
| | min-max | median | 1 st -3 rd qu. | min-max | median | 1 st -3 rd qu. | |
| BDI | 0.0-33.0 | 8.0 | 4.0-14.5 | 0.0-38.0 | 7.0 | 2.0-9.8 | 0.023 |
| STAY 1 | 23.0-70.0 | 38.0 | 31.0-48.0 | 22.0-73.0 | 36.0 | 29.0-44.3 | 0.608 |
| STAY 2 | 27.0-73.0 | 42.0 | 33.0-52.0 | 24.0-71.0 | 39.0 | 32.3-47.8 | 0.206 |
| HADS-A | 2.0-16.0 | 6.0 | 4.0-9.0 | 0.0-18.0 | 6.0 | 3.3-9.0 | 0.353 |
| HADS-D | 1.0-16.0 | 5.0 | 3.5-7.0 | 1.0-15.0 | 4.0 | 3.0-6.0 | 0.068 |
| SF36 | 117.0-764.0 | 523.8 | 351.4-628.5 | 133.0-772.0 | 593.4 | 510.7-658.4 | 0.008 |
| | Adherent to GFD (n=78) | | | | | | p-value* |
| | T0 | | | T1 | | | |
| | min-max | median | 1 st -3 rd qu. | min-max | median | 1 st -3 rd qu. | |
| BDI | 0.0-38.0 | 10.0 | 5.0-16.0 | 0.0-38.0 | 6.0 | 2.0-13.0 | 0.000 |
| STAY 1 | 21.0-75.0 | 38.0 | 33.0-50.0 | 21.0-73.0 | 35.0 | 29.0-41.8 | 0.005 |
| STAY 2 | 23.0-73.0 | 43.0 | 35.3-51.8 | 20.0-71.0 | 38.0 | 32.0-48.0 | 0.001 |
| HADS-A | 0.0-20.0 | 7.0 | 4.3-11.0 | 0.0-18.0 | 6.0 | 3.0-9.0 | 0.003 |
| HADS-D | 1.0-20.0 | 5.0 | 4.0-8.0 | 1.0-15.0 | 4.0 | 3.0-7.0 | 0.007 |
| SF36 | 35.5-764.0 | 423.6 | 319.9-573.2 | 133.0-772.0 | 594.3 | 467.1-689.5 | 0.000 |
| | Non adherent to GFD (n=12) | | | | | | p-value* |
| | T0 | | | T1 | | | |
| | min-max | median | 1 st -3 rd qu. | min-max | median | 1 st -3 rd qu. | |
| BDI | 0.0-25.0 | 8.0 | 4.5-17.0 | 0-29.0 | 9.5 | 6.8-13.5 | 0.759 |
| STAY 1 | 24.0-62.0 | 42.5 | 38.3-46.5 | 29-65.0 | 44.0 | 32.0-53.0 | 0.823 |
| STAY 2 | 31.0-74.0 | 43.0 | 36.5-46.5 | 29-72.0 | 39.5 | 36.5-53.5 | 0.688 |
| HADS-A | 2.0-17.0 | 9.0 | 5.8-10.3 | 0-19.0 | 9.5 | 5.5-11.3 | 0.438 |
| HADS-D | 3.0-11.0 | 6.0 | 4.0-6.3 | 2-13.0 | 6.0 | 5.0-7.0 | 0.384 |
| SF36 | 177.3-681.0 | 633.0 | 495.4-649.8 | 244.3-771.0 | 579.2 | 492.1-685.0 | 0.831 |

* Wilcoxon test

Supp Table S3. Stratified analysis considering sex and age (T0-T1)

| | Males (n=17) | | | | | | p-value* |
|--------|----------------|--------|--------------------------------------|-------------|--------|--------------------------------------|--------------|
| | T0 | | | T1 | | | |
| | min-max | median | 1 st -3 rd qu. | min-max | median | 1 st -3 rd qu. | |
| BDI | 0.0-28.0 | 8.0 | 4.0-11.0 | 0.0-38.0 | 6.0 | 0.0-13.0 | 0.675 |
| STAY 1 | 24.0-63.0 | 38.0 | 34.0-43.0 | 23.0-73.0 | 30.0 | 29.0-40.5 | 0.232 |
| STAY 2 | 24.0-66.0 | 41.0 | 35.0-44.0 | 20.0-71.0 | 34.0 | 32.0-49.0 | 0.393 |
| HADS-A | 0.0-13.0 | 6.0 | 3.0-8.0 | 0.0-18.0 | 4.0 | 1.0-8.0 | 0.465 |
| HADS-D | 2.0-16.0 | 5.0 | 3.0-8.0 | 1.0-14.0 | 5.0 | 3.0-6.0 | 0.584 |
| SF36 | 161.5-764.0 | 497.7 | 326.0-656.7 | 133.0-749.0 | 659.0 | 464.2-710.0 | 0.207 |
| | Females (n=76) | | | | | | p-value* |
| | T0 | | | T1 | | | |
| | min-max | median | 1 st -3 rd qu. | min-max | median | 1 st -3 rd qu. | |
| BDI | 0.0-38.0 | 10.0 | 5.0-17.8 | 0.0-37.0 | 6.0 | 3.0-13.5 | 0.000 |
| STAY 1 | 21.0-75.0 | 39.0 | 32.5-50.0 | 21.0-65.0 | 36.0 | 29.0-45.5 | 0.047 |
| STAY 2 | 23.0-74.0 | 44.0 | 34.5-52.0 | 22.0-72.0 | 39.0 | 33.0-48.3 | 0.006 |
| HADS-A | 0.0-20.0 | 7.0 | 5.0-11.3 | 0.0-19.0 | 6.0 | 4.0-10.0 | 0.026 |
| HADS-D | 1.0-20.0 | 6.0 | 4.0-8.0 | 2.0-15.0 | 4.0 | 3.0-7.0 | 0.023 |
| SF36 | 35.5-742.0 | 467.0 | 330.2-578.8 | 187.0-772.0 | 580.2 | 472.1-668.0 | 0.000 |
| | 16-34 (n=39) | | | | | | p-value* |
| | T0 | | | T1 | | | |
| | min-max | median | 1 st -3 rd qu. | min-max | median | 1 st -3 rd qu. | |
| BDI | 0.0-33.0 | 11.0 | 5.0-16.5 | 0.0-37.0 | 7.0 | 1.0-12.5 | 0.004 |
| STAY 1 | 24.0-75.0 | 40.5 | 30.0-52.0 | 22.0-65.0 | 36.0 | 29.0-45.0 | 0.088 |
| STAY 2 | 27.0-73.0 | 43.0 | 40.0-52.0 | 24.0-63.0 | 41.0 | 32.5-49.0 | 0.137 |
| HADS-A | 2.0-18.0 | 8.0 | 4.0-12.0 | 0.0-19.0 | 6.0 | 2.5-10.0 | 0.025 |
| HADS-D | 2.0-14.0 | 5.0 | 3.0-8.0 | 1.0-15.0 | 4.0 | 3.0-7.0 | 0.109 |
| SF36 | 142.5-764.0 | 484.3 | 341.2-590.2 | 202.5-772.0 | 582.8 | 470.7-696.1 | 0.023 |
| | 35+ (n=54) | | | | | | p-value* |
| | T0 | | | T1 | | | |
| | min-max | median | 1 st -3 rd qu. | min-max | median | 1 st -3 rd qu. | |
| BDI | 0.0-38.0 | 8.0 | 4.0-14.8 | 0.0-38.0 | 6.0 | 3.0-14.0 | 0.033 |
| STAY 1 | 21.0-72.0 | 38.5 | 34.3-45.5 | 21.0-73.0 | 36.0 | 30.0-44.0 | 0.116 |
| STAY 2 | 23.0-74.0 | 43.0 | 35.0-50.0 | 20.0-72.0 | 38.0 | 32.3-48.5 | 0.014 |
| HADS-A | 0.0-20.0 | 7.0 | 5.0-10.0 | 1.0-18.0 | 5.0 | 4.0-10.0 | 0.259 |
| HADS-D | 1.0-20.0 | 6.0 | 4.0-7.8 | 1.0-14.0 | 5.0 | 3.0-7.0 | 0.118 |
| SF36 | 35.5-742.0 | 467.0 | 326.0-576.5 | 133.0-764.0 | 611.5 | 453.1-679.0 | 0.001 |

* Wilcoxon test

Supp Table S4. Delta T1-T0 stratified

| | Males (N=17) | | | Females (N=76) | | | p-value* |
|--------|------------------------|--------|---------------------|----------------------------|--------|---------------------|--------------|
| | 1 st qu. | median | 3 rd qu. | 1 st qu. | median | 3 rd qu. | |
| BDI | -4.0 | 0.0 | 2.0 | -7.0 | -3.0 | 1.0 | 0.311 |
| STAY 1 | -10.0 | -3.0 | 4.0 | -9.8 | -2.0 | 3.0 | 0.836 |
| STAY 2 | -10.0 | -3.0 | 5.0 | -10.0 | -2.0 | 1.0 | 0.668 |
| HADS-A | -2.0 | -2.0 | 2.0 | -3.5 | -1.0 | 1.5 | 0.908 |
| HADS-D | -4.0 | -1.0 | 3.0 | -3.0 | -1.0 | 1.0 | 0.724 |
| SF36 | -65.0 | 57.0 | 155.0 | -18.4 | 53.2 | 174.8 | 0.727 |
| | 16-34 (n=39) | | | 35+ (n=54) | | | p-value* |
| | 1 st qu. | median | 3 rd qu. | 1 st qu. | median | 3 rd qu. | |
| BDI | -7.5 | -3.0 | 1.5 | -5.0 | -3.0 | 1.0 | 0.358 |
| STAY 1 | -14.5 | -3.0 | 3.8 | -9.0 | -2.0 | 3.0 | 0.364 |
| STAY 2 | -10.0 | -2.0 | 2.0 | -10.0 | -2.0 | 1.0 | 0.614 |
| HADS-A | -4.5 | -2.0 | 1.5 | -3.0 | 0.0 | 2.0 | 0.272 |
| HADS-D | -3.5 | -1.0 | 1.0 | -3.0 | -0.5 | 1.3 | 0.990 |
| SF36 | -31.8 | 27.3 | 153.9 | -3.6 | 71.8 | 178.0 | 0.596 |
| | Classical (n=46) | | | Non classical (n=47) | | | p-value* |
| | 1 st qu. | median | 3 rd qu. | 1 st qu. | median | 3 rd qu. | |
| BDI | -7.0 | -3.0 | 1.0 | -5.0 | -3.0 | 1.8 | 0.613 |
| STAY 1 | -11.0 | -4.0 | 1.0 | -9.3 | -0.5 | 9.0 | 0.158 |
| STAY 2 | -10.0 | -3.0 | 0.8 | -8.5 | -2.0 | 3.0 | 0.260 |
| HADS-A | -5.8 | -2.0 | 2.0 | -2.0 | 0.0 | 1.0 | 0.113 |
| HADS-D | -3.0 | 0.0 | 2.0 | -3.8 | -1.0 | 1.0 | 0.930 |
| SF36 | -15.9 | 125.9 | 223.0 | -27.8 | 35.9 | 133.5 | 0.265 |
| | Adherent to GFD (N=78) | | | Not adherent to GFD (N=12) | | | p-value* |
| | 1 st qu. | median | 3 rd qu. | 1 st qu. | median | 3 rd qu. | |
| BDI | -7.0 | -3.5 | 1.0 | -2.5 | 1.0 | 3.5 | 0.058 |
| STAY 1 | -10.0 | -3.0 | 3.0 | -6.5 | 1.0 | 7.5 | 0.189 |
| STAY 2 | -10.0 | -3.0 | 1.0 | -2.0 | 1.0 | 3.5 | 0.099 |
| HADS-A | -4.0 | -1.0 | 1.0 | -0.5 | 1.0 | 2.0 | 0.050 |
| HADS-D | -3.8 | -1.0 | 1.0 | -0.3 | 1.0 | 3.0 | 0.062 |
| SF36 | -14.3 | 57.0 | 202.3 | -99.8 | -68.8 | 93.9 | 0.029 |

* Mann-Whitney test

Supp Table S5. multiple comparisons between T0, T1 and T2 (n=55)

| | T0 | | T1 | | T2 | | T0-T1 | T1-T2 | T0-T2 |
|--------|--------|--------------------------------------|--------|--------------------------------------|--------|--------------------------------------|--------------|--------------|--------------|
| | Median | 1 st -3 rd Qu. | Median | 1 st -3 rd Qu. | Median | 1 st -3 rd Qu. | p-value* | P-value* | P-value* |
| BDI | 8,0 | 5,0-16,5 | 6,0 | 2,0-11 | 4,0 | 1,0-8,0 | 0.003 | 0.060 | 0.000 |
| STAY 1 | 38,0 | 31,0-50,5 | 34,0 | 28,0-41,8 | 32,0 | 28,0-39,0 | 0.144 | 0.015 | 0.000 |
| STAY 2 | 43,0 | 34,0-51,5 | 38,0 | 31,8-45,8 | 36,5 | 30,3-44,0 | 0.063 | 0.006 | 0.000 |
| HADS-A | 7,0 | 4,0-11,0 | 4,5 | 3,0-8,8 | 4,0 | 3,0-7,0 | 0.030 | 0.204 | 0.000 |
| HADS-D | 5,0 | 4,0-8,0 | 4,0 | 3,0-7,0 | 4,0 | 3,0-6,8 | 0.045 | 1.000 | 0.003 |
| SF36 | 417,8 | 294,8-560,5 | 608,2 | 472,8-696,5 | 612,8 | 480,7-704,2 | 0.000 | 0.141 | 0.000 |

* Wilcoxon test; p-values adjusted (Dunn-Bonferroni) for multiple comparison