**Legend of online supplementary materials**

**Supplementary Figure 1.** Flowchart of the screening process



**Supplemental Table 1. Differences between treatment adherent and poor adherent patients**

|  |  |  |  |
| --- | --- | --- | --- |
| **Variables**  | **Adherent**(n=102) | **Poor adherence**(n=74) | *p value* |
| Age, median (IQR)  | 45 (32-56) | 38 (30-48) | **0.007** |
| Male, n(%) | 73 (71) | 53 (72) | 0.994 |
| Married, n(%) | 53 (52) | 29 (39) | 0.141 |
| Highly educated*,* n(%) | 67 (65) | 54 (73) | 0.303 |
| Smoking, n(%) | 4 (4) | 5 (7) | 0.399 |
| Other chronic diseases, median (IQR) | 1 (0-2) | 1 (0-2) | 0.487 |
| Other chronic medication, median (IQR) | 0 (0-2) | 1 (0-2) | 0.663 |
| Disease duration in years,median (IQR) | 5 (3-7) | 5 (3-8) | 0.219 |
| Histologic active disease\*, n (%) | 24 (34) | 19 (41) | 0.444 |
| Dilatation ever, n (%) | 7 (7) | 7 (10) | 0.530 |
| First treatment, n(%) | 33 (32) | 18 (24) | 0.246 |
| Treatment duration in months*,* median (IQR) | 36 (19-73) | 39 (27-72) | 0.471 |
| SDI, median (IQR) | 3 (0-5) | 4 (2-6) | **0.048** |
| Treatment side effects, n(%)  | 18 (18) | 15 (20) | 0.660 |
| High concern, n(%) | 24 (23) | 26 (35) | 0.092 |
| Low necessity, n(%) | 33 (33) | 45 (61) | **<0.001** |

SDI Straumann Dysphagia Index

\* Number of patients with histologic active disease (≥ 15 eosinophils/HPF) after start of treatment

**Supplemental Table 2.** Relationship between poor treatment adherence and

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **IPQ questions** | **Adherent***Median (IQR)* | **Poor adherence***Median (IQR)* | *p value* | **Univariate Logistic Regression***Odds ratio (95%CI) p value* |
| IPQ 1*Consequences* | 4 (2-7) | 5 (3-7) | 0.254 | 1.054 (0.948-1.173) | 0.332 |
| IPQ 2*Timeline* | 10 (8-10) | 10 (8-10) | 0.966 | 1.055 (0.882-1.262) | 0.557 |
| IPQ 3*Personal control* | 7 (4-9) | 6 (5-7) | 0.065 | 0.921 (0.826-1.027) | 0.137 |
| IPQ 4*Treatment control* | 8 (5-9) | 7 (5-8) | **0.030** | 0.880 (0.775-1.000) | **0.050** |
| IPQ 5*Identity* | 6 (2-8) | 6 (4-7) | 0.835 | 1.027 (0.921-1.144) | 0.634 |
| IPQ 6*Concern* | 5 (2-7) | 6 (3-7) | 0.353 | 1.047 (0.939-1.167) | 0.409 |
| IPQ 7*Understanding* | 7 (5-8) | 6 (5-8) | 0.407 | 0.967 (0.857-1.092) | 0.590 |
| IPQ 8*Emotional response* | 3 (1-6) | 3 (1-5) | 0.474 | 1.040 (0.937-1.153) | 0.464 |

illness perception

IPQ Illness Perception Questionnaire

**Supplemental Table 3.** Differences between adherent and poor adherent patients in medical treatment and dietary treatment group

|  |  |  |
| --- | --- | --- |
| **Variables** | **Medical treatment** | **Dietary treatment** |
| **Adherent** (n=78) | **Poor Adherence**(n=56) | *p value* | **Adherent**(n=48) | **Poor Adherence**(n=26) | *p value* |
| Age, median (IQR)  | 46 (37-57) | 38 (30-48) | **0.002** | 38 (29-53) | 41 (33-51) | 0.571 |
| Male, n(%) | 58 (74) | 39 (70) | 0.547 | 29 (60) | 19 (73) | 0.981 |
| Married, n(%) | 47 (60) | 22 (39) | **0.017** | 17 (35) | 10 (39) | 0.524 |
| Highly educated, n(%) | 47 (60) | 39 (70) | 0.264 | 38 (79) | 22 (85) | 0.634 |
| Smoking, n(%) | 2 (3) | 5 (9) | 0.102 | 2 (4) | 0 (100) |  |
| Other chronic diseases, median (IQR) | 1 (0-2) | 1 (0-3) | 0.600 | 1 (0-2) | 1 (0-2) | 0.358 |
| Other chronic medication, median (IQR) | 0 (0-2) | 1 (0-2) | 0.482 | 0 (0-2) | 0 (0-1) | 0.348 |
| Disease duration in years*,* median (IQR) | 5 (3-8) | 6 (3-8) | 0.468 | 4 (2-6) | 5 (4-8) | 0.107 |
| SDI, median (IQR) | 3 (0-5) | 4 (2-6) | **0.019** | 4 (2-6) | 4 (1-5) | 0.576 |
| Histologic active disease\*, n (%) | 16 (30) | 10 (30) | 0.947 | 13 (41) | 13 (72) | 0.032 |
| Dilatation ever, n(%) | 8 (10) | 3 (5) | 0.308 | 4 (8) | 4 (15) | **0.038** |
| First treatment, n(%) | 28 (36) | 15 (27) | 0.265 | 13 (27) | 6 (23) | 0.641 |
| Food groups, median (IQR) |  |  |  | 2 (1-5) | 2 (2-5) | 0.734 |
| Treatment duration in months,median (IQR) | 34 (20-75) | 39 (22-73) | 0.983 | 40 (21-68) | 41 (33-65) | 0.408 |
| Treatment side effects, n(%)  | 13 (17) | 11 (20) | 0.658 | 10 (21) | 4 (15) | 0.657 |
| High concern n (%) | 24 (31) | 20 (36) | 0.548 | 7 (15) | 5 (19) | 0.201 |
| Low necessity n (%)  | 24 (31) | 35 (63) | **<0.001** | 10 (21) | 11 (42) | 0.201 |

\* Number of patients with histologic active disease (≥ 15 eosinophils/HPF) after start of treatment, histologic data available for 87 medical treated patients and for 50 dietary treated patients

**Supplemental Table 4.** Relationship between poor adherence to treatment and illness perception in medical treatment and

diet treatment group

IPQ; Illness Perception Questionnaire

|  |  |  |
| --- | --- | --- |
| **Variables** | **Medical treatment** | **Dietary treatment** |
| **Adherent***Median (IQR)* | **Poor adherence***Median (IQR)* | *p value* | **Univariate logistic regression***Odds ratio (95%CI)* *p value* | **Adherent***Median (IQR)* | **Poor adherence***Median (IQR)* | *p value* | **Univariate logistic regression***Odds ratio (95%CI) p value* |
| IPQ 1Consequences | 4 (2-7) | 5 (2-7) | 0.357 | 1.055 (0.938-1.187) | 0.375 | 6 (4-8) | 6 (4-7) | 0.650 | 0.967 (0.801-1.167) | 0.724 |
| IPQ 2Timeline | 10 (8-10) | 10 (8-10) | 0.985 | 1.035 (0.842-1.272) | 0.743 | 10 (10-10) | 10 (8-10) | 0.540 | 0.909 (0.682-1.211) | 0.514 |
| IPQ 3Personal control | 7 (4-8) | 6 (4-7) | 0.180 | 0.933 (0.824-1.056) | 0.270 | 7 (4-8) | 7 (5-8) | 0.737 | 0.954 (0.791-1.150) | 0.621 |
| IPQ 4Treatment control | 8 (6-9) | 7 (5-8) | **0.044** | 0.876 (0.752-1.020) | 0.088 | 8 (5-9) | 7 (5-8) | 0.170 | 0.889 (0.728-1.086) | 0.250 |
| IPQ 5Identity  | 5 (2-7) | 5 (3-7) | 0.631 | 1.039 (0.919-1.175) | 0.540 | 7 (4-8) | 6 (4-8) | 0.170 | 0.969 (0.804-1.167) | 0.739 |
| IPQ 6Concern | 5 (2-7) | 6 (3-7) | 0.634 | 1.030 (0.912-1.164) | 0.635 | 5 (3-7) | 6 (4-7) | 0.984 | 1.063 (0.882-1.282) | 0.520 |
| IPQ 7Understanding | 7 (4-8) | 6 (5-8) | 0.554 | 0.969 (0.838-1.120) | 0.668 | 7 (5-9) | 7 (5-8) | 0.211 | 0.952 (0.789-1.149) | 0.610 |
| IPQ 8Emotional response | 3 (1-5) | 4 (1-6) | 0.596 | 1.042 (0.929-1.169) | 0.482 | 5 (2-7) | 4 (3-5) | 0.708 | 0.987 (0.829-1.175) | 0.886 |