

Supplementary Material

Table 1S. Rome III FC questionnaire symptoms before and after BF. All symptoms' frequency decreased after BF.

	Before BF	After BF			p-value*
		No	Yes	Tot	
Straining during at least 25% of defecations	No	3	3	6	<0,001
	Yes	80	45	125	
	Tot	83	48	131	
Lumpy or hard stools in at least 25% of defecations	No	30	14	44	<0,001
	Yes	64	23	87	
	Tot	94	37	131	
Sensation of incomplete evacuation for at least 25% of defecations	No	0	1	1	<0,001
	Yes	85	45	130	
	Tot	85	46	131	
Sensation of anorectal obstruction/ blockage for at least 25% of defecations	No	44	6	50	<0,001
	Yes	47	34	81	
	Tot	91	40	131	
Manual maneuvers to facilitate at least 25% of defecations	No	70	3	73	0.021
	Yes	13	45	58	
	Tot	83	48	131	
Fewer than 3 defecations per week	No	100	0	100	<0,001
	Yes	21	10	31	
	Tot	121	10	131	

*McNemar Test;

Abbreviations: BF=Biofeedback; FC=Functional Constipation

Table 2S. Association between manometric and BET outcomes and BF response. Patients who responded to BF significantly improves in Rome III FDD diagnoses and in BET.

	Response to BF		p-value*
	Yes	No	
Improvement after BF (DD pre → No DD post)	48	7	<0.001
No Improvement after BF (DD pre → DD post)	0	13	
Improvement after BF (IRP pre → No IDP post)	29	2	<0.001
No Improvement after BF (IRP pre → IDP post)	0	4	
Improvement after BF (BET failed pre → BET succeeded post)	82	0	<0.001
No Improvement after BF (BET failed pre → BET failed post)	2	47	

*Chi-Square Test

Abbreviations: BF=Biofeedback; DD=Dyssynergic defecation; IDP=Inadequate defecatory propulsion, BET=Balloon expulsion test

Table 3S. Rome III FC symptoms criteria frequency before and after BF therapy. In the table is reported the cumulative percentages of patients meeting the Rome III criteria for FC. After BF, 62.6% of patients showed 0 or only 1 criteria.

	Before BF Therapy			After BF Therapy		
	Freq.	Perc. (%)	Cumulative perc. (%)	Freq.	Perc. (%)	Cumulative perc. (%)
0 criteria met	0	0	0	63	48.1	48.1
1 criteria met	0	0	0	19	14.5	62.6
2 criteria met	6	4.6	4.6	1	0.8	63.4
3 criteria met	46	35.1	39.7	12	9.2	72.5
4 criteria met	43	32.8	72.5	13	9.9	82.4
5 criteria met	26	19.8	92.4	18	13.7	96.2
6 criteria met	10	7.6	100.0	5	3.8	100.0
Tot	131	100.0		131	100.0	

Abbreviations: BF=Biofeedback; Freq.=Frequency; Perc.=Percentage

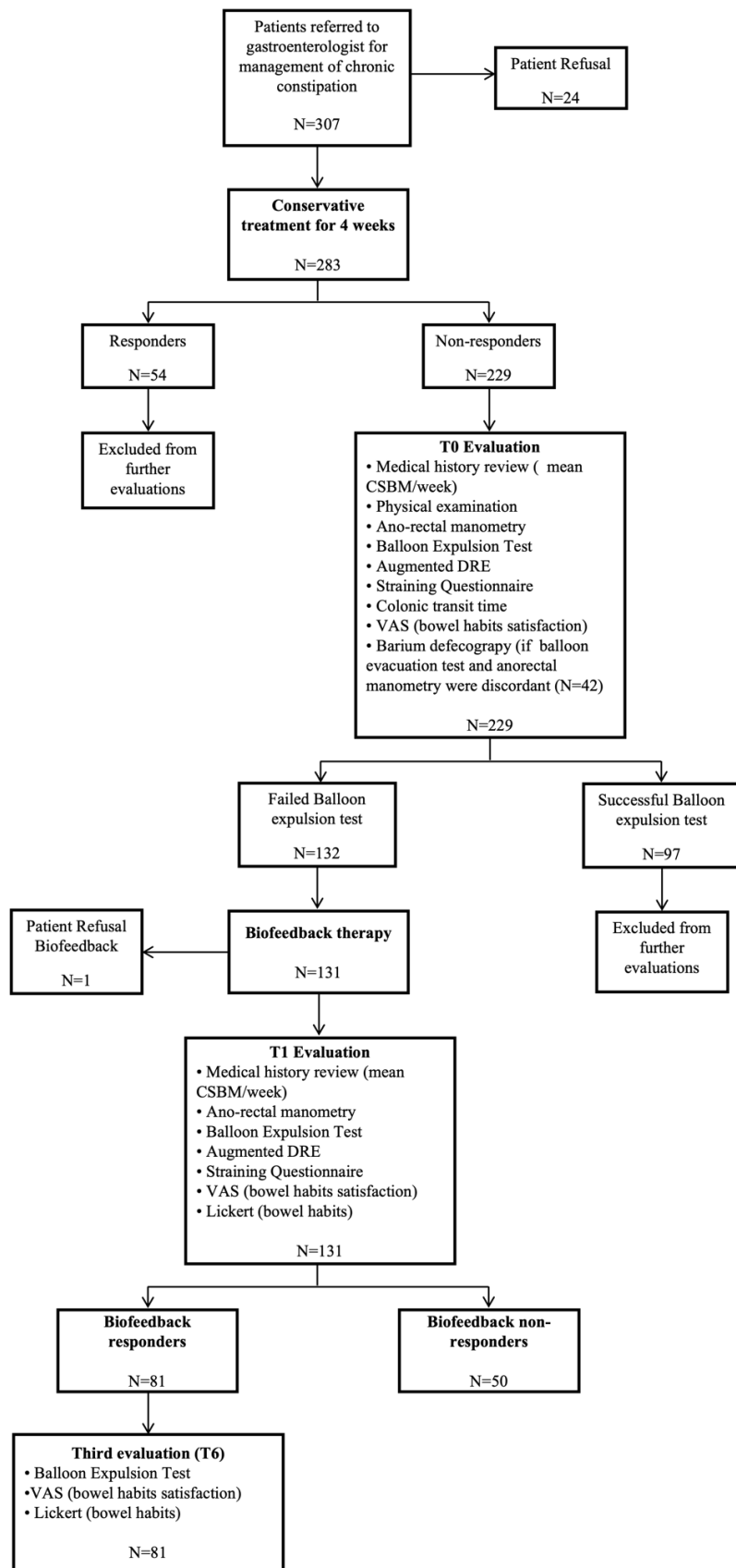


Figure 1S. Study Design

Abbreviations: CSBM=Complete Spontaneous Bowel Movement; VAS=Visual Analogue Scale; Augmented-DRE=digital rectal examination augmented by abdominal palpation during straining