Biologic Therapy Improves Sexual Dysfunction in IBD Regardless of Prior Use

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Background and Aims

Patients with inflammatory bowel disease (IBD) have a high degree of sexual dysfunction (SD)

SD has been correlated with depression, poor quality of life and increased disease activity.

Prior studies have also correlated SD with past medication use such as steroids and biologic therapy.

AIM
To track SD longitudinally and assess the impact of biologic therapy, using IBD-specific scales such as the IBD- Female and Male Sexual Dysfunction Scales (FSDS and MSDS).

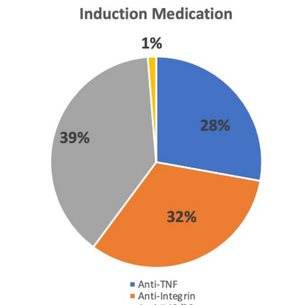
Methods

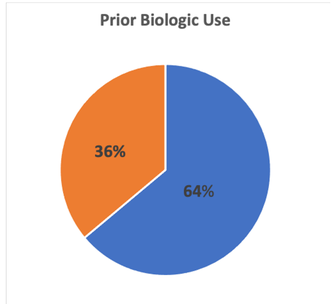
Patients with Crohn's disease (CD) and ulcerative colitis (UC) starting a new biologic therapy (anti-TNF, anti-integrin, anti-IL12/23, JAK inhibitor) were surveyed at start of induction therapy and at 6-months.

Surveys included the IBD- FSDS and MSDS, PROMIS Brief Sexual Function and Satisfaction Profile, HBI, pMayo, PHQ-9, Short IBD Questionnaire (SIBDQ), and IBD-Disability Index (IBDDI). Clinical data included inflammatory markers and prior IBD therapies.

Therapy response was defined as a reduction in HBI, pMayo, SCCAI ≥3 or total HBI ≤ 4, pMayo < 2, SCCAI ≤2 at 6 months.

Baseline Patient Characteristics





158 patients (86 males and 72 females) completed surveys at induction, and 101 completed at 6 months. 64% of participants had used biologic therapy previously.

The median age was 31 years, 58% had CD, 42% had UC, and 32% were non-white.

SD correlated with the SIBDQ (r=0.56), PHQ-9 (r=0.51, p<0.001). MSDS and FSDS scores correlated with the HBI (r=0.49, p=0.002), pMayo and SCCAI score (0.44, p=0.02). SD did not correlate with markers of inflammation.

Table 1: Median Sexual Dysfunction, Clinical Disease Activity at Baseline and 6 months

	Induction	6 months	p- value (survey 1-3)
All Participants			
MSDS (out of 40)	5.5 (2- 13)	2.5 (0-9)	**0.048***
FSDS (out of 60)	12 (3-27)	9 (3-19)	0.477
PROMIS	31 (20-38)	29.5 (22-35)	0.682
HBI	5 (3-7)	3 (1-6)	**0.003***
pMayo	3 (2-5)	2 (1-4)	0.052
SCCAI	6 (4-8)	4 (3-6)	**0.003***

At induction, the median MSDS score was 5.5 out of 40 (IQR 2-13). FSDS was 12 out of 60 (3-27).

MSDS scores improved at 6 months among all participants (p= 0.048). FSDS and PROMIS scores numerically improved among all participants, but did not reach significance.

Table 2: Median Sexual Dysfunction, Clinical Disease Activity Stratified by Therapeutic Response and Previous Biologic Use

	Induction	6 months	p- value (survey 1-3)
Therapy responders			
All			
MSDS (out of 40)	5 (1-10)	1 (0-3)	0.004*
FSDS (out of 60)	13 (3-30)	8 (3, 10)	0.042*
PROMIS	32 (26-38)	27 (20-32)	**0.039***
HBI	5 (2-6)	2 (1-3)	**<0.001***
pMayo	4 (2-6)	1 (0-3)	**<0.001***
SCCAI	7 (5-9)	3 (1-4)	**<0.001***
Therapy non-responders			
MSDS	6 (4-16)	8 (3- 12)	0.472
FSDS	12 (8.5-29)	11.5 (3.5- 22)	0.610
PROMIS	34 (2-40.5)	32 (16- 35.5)	0.656
HBI	6 (3-7)	6 (4.5-7.5)	0.285
pMayo	5 (3-6)	4 (1-7)	0.310
SCCAI	6 (5-7)	5 (4-7)	0.441
Biologic naïve			
MSDS	6 (3-14)	2 (0-7)	0.020*
FSDS	12 (3-26)	8 (3-10)	0.089
PROMIS	30 (20-33.5)	26 (2-32)	**0.022***
Prior biologic use			
MSDS	6.5 (3-14)	2 (0.5-0.5)	**0.039***
FSDS	16 (3.5-30)	4 (1.5-14)	**0.044***
PROMIS	30.5 (10-38)	26 (5-35)	**0.045***

Therapy response= Reduction in HBI, pMayo, SCCAI ≥3 or HBI ≤ 4, pMayo < 2, or SCCAI ≤2 at survey 3
Therapy non-response= Reduction in HBI <3, pMayo <3 points or SCCAI <3

Both MSDS and FSDS scores improved significantly among therapy responders (p=0.004 and p= 0.042, respectively) as did PROMIS scores, but this was not observed in non-responders (p=0.66).

Both patients with prior biologic use and biologic naïve patients experienced improvement in sexual function among therapy responders (p=0.02, 0.04), although this did not reach statistical significance among women without prior biologic use.

Conclusions

There was a strong correlation between SD, disease activity, depression, disability, and quality of life indices. Our data shows that biologic therapy improves sexual function in therapy responders.
Our findings in this longitudinal study show improvement in SD with biologic use in patients who are both biologic naïve and those with prior use.

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