Case Report

Volume - 14 | Issue - 12 | December - 2024 | PRINT ISSN No. 2249 - 555X | DOI : 10.36106/ijar

Psychiatry

# A PATIENT WITH FUNCTIONAL DIARRHOEA TREATED WITH FLUOXETINE: A CASE REPORT

| | |
|---|---|
| **Dr Monalisa Boro*** | Senior Resident, Department Of Psychiatry, All India Institute Of Medical Sciences, Guwahati, Assam *Corresponding Author |
| **Dr Nikhita Das** | Senior Resident, Department Of Psychiatry, All India Institute Of Medical Sciences, Guwahati, Assam |
| **Dr Pranjal Dey** | Professor, Department Of Psychiatry, All India Institute Of Medical Sciences, Guwahati, Assam |

**ABSTRACT** Functional diarrhoea (FD) has no clear cause despite extensive investigations. According to Rome IV diagnostic criteria patients with FD must have loose or watery stools, without predominant abdominal pain or bothersome bloating, occurring in >25% of stools, for the last 3 months with symptom onset at least 6 months prior to diagnosis, and patients meeting criteria for IBS-D should be excluded. A 25-year-old unmarried female presented to the psychiatry outpatient department with a history of passage of loose stool for the past 2 years. She passed stool 10-12 times a day. It was watery in consistency, not associated with the passage of fresh blood or mucus, or foul smell, but associated with occasional pain abdomen. The 5-item patient-reported outcomes measurement information system (PROMIS) diarrhoea questionnaire scoring of the patient was 24, and the T-score was 84.1. A higher T- score (> 60) indicates severe symptoms. She was started with 10mg fluoxetine and increased to 20mg after 4 weeks. Her PROMIS (diarrhoea) score dropped to 4 after 8 weeks of treatment. The current treatment options primarily target the patient's symptoms rather than the underlying etiology of the condition. Antidepressants are a mainstay of treatment in patients with moderate to severe functional abdominal disorders. A few studies have evaluated the effect of fluoxetine on IBS symptoms, but they had different conclusions. However, these medications were not studied specifically in FD.

**KEYWORDS :** Functional Diarrhoea, Antidepressants, Fluoxetine

## INTRODUCTION:

Functional diarrhoea (FD) has no clear cause despite extensive investigations. [1] Functional Gastrointestinal Disorders is characterized by abnormalities in the intestinal motility, an increase in the sensations produced by digestive tract activity (visceral hypersensitivity), and brain-gut dysfunction, especially in the brain's ability to regulate painful signals from the GI tract. [2] According to Rome IV diagnostic criteria patients with FD must have loose or watery stools, without predominant abdominal pain or bothersome bloating, occurring in >25% of stools, for the last 3 months with symptom onset at least 6 months prior to diagnosis, and patients meeting criteria for IBS-D should be excluded. Rome IV criteria differentiate IBS-D from FD, by the presence and frequency of abdominal pain. [3]

Pathophysiology of FD needs more research as there are not much literature on it. FD has often been lumped with IBS, and the lack of proper definition has made it difficult to classify FD as a separate entity. [4] However, available evidence supports increased colonic and small bowel motility as the final pathophysiologic pathway of FD. [5] In a recent multinational online survey from 26 countries, the prevalence of Rome IV confirmed FD was 4.7% (4.5%–4.9%), while it was 1.2% (1.0%–1.3%) in a household survey from 9 countries. [6]

Antidepressants block pain impulses between the gut and the brain, thereby reduces visceral hypersensitivity, and recovers the normal brain-gut functioning. They can also help regulate abnormal bowel functions, as well as other bowel symptoms, hence, restore more normal nerve functioning in the brain and intestines. [2] The psychopathology, management and treatment of functional diarrhoea is poorly studied; hence, this has prompted us to report this case.

## The Case:

A 25-year-old unmarried female presented to the psychiatry outpatient department with a history of passage of loose stool for the past 2 years, after being referred from the Department of Internal Medicine. She passed stool 10-12 times a day. It was watery in consistency, not associated with the passage of fresh blood or mucus, or foul smell, but associated with occasional pain abdomen. She was initially taken to a local physician and all necessary examinations and investigations were done with no significant findings supporting her condition. The patient was on several medications such as probiotics, rifaximin, proton pump inhibitors, antacids, anti-motility drugs, etc; along with lifestyle modifications, dietary supplements, and rehydration therapy. As her condition did not improve, she moved from one physician to another for 2 years, but in vain. Ultimately, she was referred to psychiatry for further evaluation and treatment.

On detail evaluation, there was no persistent low mood, excessive worry, disturbed sleep, or any major stressors before the onset of the illness. Her Hamilton Anxiety Rating Scale (HAM-A) and Hamilton Depression Rating Scale (HAM-B) scores were 4 and 6, respectively. The 5-item patient-reported outcomes measurement information system (PROMIS) diarrhoea questionnaire scoring of the patient was 24, and the T-score was 84.1. A higher T- score (> 60) indicates severe symptoms. Due to this, she was not able to do her daily chores or go out of her home even for her essential requirements. She was started with 10mg fluoxetine and increased to 20mg after 4 weeks. All other medications that she was on were discontinued. She was followed up after 4 weeks, and the frequency of passage of loose stool decreased gradually with each passing day. Her PROMIS diarrhoea score dropped to 4 after 8 weeks of treatment.

## DISCUSSION:

Data on the clinical features of FD patients are lacking. Rome IV consensus statement summarizes that "while anxiety often accompanies IBS, few data apply specifically to FD". Rome IV also acknowledged that functional bowel disorders (IBS and non-IBS diagnoses) may present as a continuum. [3] Few kinds of literature reported significant gastrointestinal and psychological symptom overlap. [7,8] A population-based study from China, on individuals with FD had identified diarrhoea and urgency as the two most common clinical features. [9]

As the psychopathology of FD is poorly understood, the current treatment options primarily target the patient's symptoms rather than the underlying etiology of the condition. Many of the available treatments have not yet been studied in FD extensively. Current treatment options considerably overlap with the approach to IBS-D, which has been more extensively studied. Treatments fall into several broad categories, including diet and lifestyle, pharmacologic, and behavioural. [10]

Centrally acting agents, antidepressants in particular, are a mainstay of treatment in patients with moderate to severe functional abdominal disorders. [11] SSRIs may lead to improvement, particularly for global symptom scores and should be used within traditional dose ranges. [12] A review article stated that due to their side effect profile, SSRI treatment is recommended in situations where diarrhoea is not a prominent feature. [13] A few studies have evaluated the effect of fluoxetine on IBS symptoms, but they had different conclusions. In another study, it was found that Fluoxetine was effective and well-

tolerated in short-term treatment for pain and constipation-predominant irritable bowel syndrome. [14] An article revealed fluoxetine did not change rectal sensitivity in IBS patients, and possible beneficial effects on pain perception need to be confirmed in larger trials. [15] The TCAs, including desipramine, have been the most widely studied medications in the treatment of both IBS-D and functional abdominal pain. [16] A recent meta-analysis showed that antidepressants were, indeed, effective for global improvement in IBS and functional abdominal pain. However, these medications were not studied specifically in FD. [17] Other treatment options, include benzodiazepine anxiolytics and cognitive-behavioural therapy. These treatment options might be of particular benefit to patients who have psychological dysfunction. However, there are no systematic data on these approaches as well, in FD. Other pharmacological agents include bulking agents, bile-sequestering agents, and antispasmodic and antimotility agents. [10] Hence, patients go through a lot of distress due to lack of data on proper treatment guidelines for FD.

## CONCLUSION:

Finally, considering the lack of understanding of the psychopathology of FD and the lack of data for treatment of FD, we feel that further research and investigations are needed regarding this condition

## REFERENCES:


1. Longstreth G.F., Thompson W.G., Chey W.D., Houghton LL. Mearin F. Spiller RC. 2006. Functional bowel disorders. Gastroenterology. 130(5): 1480-1491.
2. Riehl Megan. Antidepressants for the treatment of Functional Gastrointestinal Disorders. Michigan Medicine Division of Gastroenterology. 1-3
3. Lacy BE, Mearin F, Chang L, Chey WD, Lembo AJ, Simren M, Spiller R. 2016. Bowel disorders. Gastroenterology, 150(6):1393–1407
4. Farthing MJ. 2005. Functional diarrhoea. Curr Gastroenterol Rep. 7:350–357.
5. Charles F, Phillips SF, Camilleri M, Thomforde GM. 1997. Rapid gastric emptying in patients with functional diarrhoea. Mayo Clin Proc. 72(4) :323–328
6. Sperber AD, Bangdiwala SI, Drossman DA, Ghoshal UC, Simren M, Tack J, et al. 2021. Worldwide prevalence and burden of functional gastrointestinal disorders, results of Rome foundation global study. Gastroenterology. 160(1):99–114
7. Heidelbaugh JJ, Stelwagon M, Miller SA, Shea EP, Chey WD. 2015. The spectrum of constipation-predominant irritable bowel syndrome and chronic idiopathic constipation: US survey assessing symptoms, care seeking, and disease burden. Am J Gastroenterol. 110(4) :580–587
8. Koloski NA, Jones M, Young M, Talley NJ. 2015. Differentiation of functional constipation and constipation predominant irritable bowel syndrome based on Rome III criteria: A population-based study. Aliment Pharmacol Ther. 41(9):856–866.
9. Zhao Y-F, Guo X-J, Zhang Z-S, Ma XQ. Wang R. Yan XY. et al. 2012. Epidemiology of functional diarrhea and comparison with diarrhea-predominant irritable bowel syndrome: A population-based survey in China. PLoS One;7(8):e43749
10. Dellon ES, Ringel Y. 2006. Treatment of Functional Diarrhea. Curr Treat Options in Gastroenterol, 9(4):331–342
11. Thompson WG, Longstreth GF, Drossman DA, Heaton KW, Irvine EJ, Lissner SA. 1999. Functional bowel disorders and functional abdominal pain. Gut; 45 Suppl 2: 1143-1147
12. Drossman DA, Tack J, Ford AC, Szigethy E, Tornblom H, Oudenhove LV. 2018. Neuromodulators for functional gastrointestinal disorders (disorders of gut-brain interaction): A Rome foundation working team report. Gastroenterology. 154(4):1140–1171
13. Törnblom H, Drossman DA. 2018. Psychotropics, Antidepressants, and Visceral Analgesics in Functional Gastrointestinal Disorders. Curr Gastroenterol Rep. 20(12):58
14. Vahedi H, Merat S, Rashidioon A, Ghoddoosi A, Malekzadeh R. 2005. The effect of fluoxetine in patients with pain and constipation-predominant irritable bowel syndrome: A double-blind randomized-controlled study. Aliment Pharmacol Ther. 22(5) :381–5
15. Kuiken SD, Tytgat GN, Boeckxstaens GE. 2003. The selective serotonin reuptake inhibitor fluoxetine does not change rectal sensitivity and symptoms in patients with irritable bowel syndrome. A double blind, randomized, placebo-controlled study. Clin Gastroenterol Hepatol. 1(3) :219–28
16. Drossman DA, Camilleri M, Mayer EA, Whitehead WE: 2002. AGA technical review on irritable bowel syndrome. Gastroenterology. 123(6) :2108–2131
17. Jackson JL, O'Malley PG, Tomkins G, Balden E, Santoro J, Kroenke K. 2000. Treatment of functional gastrointestinal disorders with antidepressant medications: a meta-analysis. Am J Med. 108(1):65–72