


Diarrhea/Constipation

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EXECUTIVE SUMMARY

This chapter will discuss a case of diarrhea/constipation. Diarrhea and constipation are functional bowel disorders (FBDs) of the mid or lower gastrointestinal (GI) tract. These FBDs result from intestinal motility dysfunction and/or changes in intestinal fluid absorption, which in turn leads to bloating, discomfort, and occasionally, abdominal pain. Certain dietary choices aggravate these conditions, leading to serious complications. Management of diarrhea/constipation usually requires the use of medications and/or lifestyle modifications. The presently discussed case involved factors that exacerbated the conditions of diarrhea/constipation. This case serves as an example of the role of medical nutrition therapy in managing FBDs (particularly diarrhea and constipation). Moreover, this case will allow the dietetic professional to assess the causes of diarrhea/constipation in order to plan for the nutrition intervention and educate the patient about the dietary manipulations required to reduce their symptoms.

INTRODUCTION

Diarrhea and constipation are considered functional bowel disorders (FBDs) of the mid or lower gastrointestinal (GI) tract (Ibrahim & Stribling, 2019). FBDs are defined as any problem to the stomach or bowel, thus, they can be identified by symptoms alone. Therefore, symptom-based classification is necessary for clinical diagnosis, evidence-based management, and research of these disorders. FBDs include irritable bowel syndrome (IBS), functional bloating, functional constipation, functional

diarrhea, and unspecified FBD. To distinguish these symptomatic conditions from transient gut symptoms, FBDs must have occurred for the first time 6 months prior and must have been present for 3 days per month over the last 3 months, indicating current activity (Longstreth et al., 2006). Previous diagnostic criteria for FBDs suggested an absence of any structural or biochemical disorders. However, previous research has confirmed that functional gut disorders can manifest as structural and biochemical disorders. Furthermore, IBS, functional bloating, functional constipation, and functional diarrhea can have multiple etiologies. The prevalence of FBDs among the general population ranges from 15% to 20% worldwide (Barnes et al., 2019). In the Middle East, it is estimated that the prevalence of FBDs has reached 18% of the population (Chang et al., 2010). Half of the adults who suffer from chronic abdominal pain and stool irregularity have FBDs (Häuser et al., 2012). The prevalence of FBDs within gender groups varies depending on the symptoms. For example, the prevalence of diarrhea tends to be greater in males than in females (Abuzerr et al., 2019), while constipation has a higher prevalence in females than in males (female-to-male ratio of 2.2; Lee et al., 2014).

Although FBDs are considered symptomatic disorders rather than serious diseases, the overall healthcare costs of these disorders are estimated to be in the range of several billion US dollars in the United States alone due to lost wages and disability (Peery et al., 2015). FBDs can interfere with everyday activities; for example, patients may repeatedly be absent from work or may find themselves giving up pleasurable activities, such as food-related gatherings, visits to restaurants, and vacations (Häuser et al., 2012). Thus, FBDs have a great impact on individuals by reducing their quality of life through social effects and the necessity of medical treatments (Neri & Iovino, 2016). The cost to society of an FBD is considerably raised by the necessity of diagnostic tests and treatments, especially when there is no specific indication. Frequent absences from work, even with medical excuses, could also place a load on medical care costs and on society.

Diarrhea/Constipation

Diarrhea is characterized by the passing of frequent and/or loose or watery stools. Other researchers have described diarrhea as an abnormality in stool production, reaching >200 g/day in adults or >20 g/kg in children (Said, 2009). Few studies have diagnosed functional diarrhea as specifically distinct from IBS, so it is impossible to provide a precise frequency. The World Health Organization (WHO) identifies diarrhea as the second leading cause of death worldwide. Each year, approximately 800,000 children under the age of five will die from the consequences of diarrhea. Therefore, the prevention and treatment of diarrhea is a primary focus of public health interventions throughout the world (WHO, 2017). Diarrhea has been reported

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