

Opium - Induced Bowel Dysfunction: A Hospital Survey in Two Academic Centers of Iran

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ABSTRACT

Background and Aim: Opioids abuse is associated with several gastrointestinal side effects. We evaluated the prevalence of gastrointestinal symptoms in OIBD in hospitalized patients in different wards of Shahid Beheshti University of Medical Sciences (SBMU) hospitals. This study aimed to investigate patients' frequency symptoms treated with opioids and opium addicts and their derivatives.

Methods: The present study is a descriptive study conducted from April 2018 to October 2018. Direct interviews with the study population were performed for data collection. Their information, symptoms, and complaints were checked.

Results: Among the gastrointestinal symptoms, constipation was the most common symptom (59.3%). This pattern is followed by bloating (28.6%), heartburn (27.1%), abdominal pain (25.7%), dysphagia (22.9%), gastroesophageal reflux disease (22.1%), nausea (12.1%), and vomiting (7.9 %) and diarrhea (5 %) were the next prevalent symptoms, respectively.

Conclusion: Finally, our study showed that OIBD symptoms are present in most opioid users and most of these people suffer from constipation. Also, the type of substance consumed by the person, the duration of continuous use and cigarette smoking play a role in the incidence of these symptoms.

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INTRODUCTION

Opium - induced bowel dysfunction (OIBD) is a growing problem due to the frequent opioids abuse for pain worldwide, as well as in Iran. It manifests various symptoms, including dry mouth, gastroesophageal reflux disease, vomiting, bloating, anorexia, gastric gastritis, constipation, and incomplete bowel emptying (1). Opioid - induced constipation (OIC) is one of the lesser - known side effects; simultaneously, it is common and deliberate opioid use among addicts (2). As a result, OIBD can significantly negatively impact the quality of life, both due to the direct and unwanted effects of opioids and the side effects of adequate doses of narcotics painkillers. Besides, opiates' gastrointestinal side effects can be an essential barrier to alternative therapies for addiction. In fact, the

economic burden of constipation is significant when considering the direct and indirect costs involved (3, 4).

A study of 577 patients at addiction treatment clinics in Kerman (Iran) found that the most common gastrointestinal symptoms among opioid addicts were constipation (22.9%), reflex (21.3%), and heartburn (15.8%) (5). About 5% of patients with OIBD experience chronic pain and recurrent abdominal pain that do not respond to increased doses of the opioids. In addition, they cannot be attributed to any other specific diagnosis, such as chronic abdominal pain. These chronic abdominal pains, which cannot be explained by another structural (e.g., gastric ulcer) or functional (e.g., IBS) diagnosis, are known as "Narcotic bowel syndrome"(6).

The present study measured the prevalence of OIBD symptoms in a group of opioid - dependent patients, whom



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hospitalized in different wards of hospitals treated with opioids (for alternative treatment in the path of addiction).

METHODS

The present study is descriptive in patients with chronic opioid compounds hospitalized in the wards of SBMU - affiliated centers From April 2018 to October 2018. Data collection was performed via a direct interview with the study population, and their information, symptoms, and complaints were checked. In this study, the sampling method was available. Exclusion criteria included: Patients who have been hospitalized for gastrointestinal surgery and diagnosed with a history of specific gastrointestinal diseases are currently has been treated, Patients who have been diagnosed with malignancy and been treated and Patients who are using other substances, at the same time, as opioids (Amphetamines, Marijuana and Benzodiazepines). For analyzing the data, SPSS software version 25 has been used. A p-value of ≤ 0.05 was considered significant.

This study was approved by the Ethics Committee of the Shahid Beheshti University of Medical Sciences with the approval number of IR.SBMU.MSP.REC.1395.509.

RESULTS & DISCUSSION

140 patients were studied. The results showed that more than 90% of the study population was male (134 out of 140 people). The reason for this result can be attributed to the general pattern of addiction in Iranian society. Women are less likely than men to have substance abuse disorders and are less likely to be hospitalized for related problems. The most range of the population was between 40 and 70 years old. Among those surveyed, 64.3% reported a history of

smoking. The results also indicated a relationship between smoking cigarette and heartburn, as heartburn was more common in cigarette smoking people ($P = 0.009$). The highest substance abuse was opium, and its derivatives were about (62.9%), followed by methadone at the rate of (28.6%), heroin (5%), and tramadol (3%). In examining the relationship between drug abuse and gastrointestinal symptoms, Heartburn in methadone and opium users and its derivatives is significantly higher than heroin and tramadol users ($P = 0.038$). The results indicated that the most prolonged duration of frequent addiction was between 1 to 10 years, and the highest was over 40 years. The results showed a relationship between drug addiction duration and nausea. It means that nausea is significantly lower in people with a mean addiction duration of less than 15.82 years ($P = 0.037$). Additionally, with increasing duration of opioid addiction, nausea has increased in people.

The percentage of gastrointestinal symptoms in the study population is shown in Figure 1. Constipation was the most prevalent symptom. The inhibitory effects of opioids are not limited to the intestines but affect the upper gastrointestinal tract, leading to intestinal dysfunction caused by drugs (7). In a study conducted in Kerman, constipation was the most gastrointestinal symptom among the studied cases (5). Another study by Mangel et al. Found that constipation was the most common occurrence of opioid use (8). Due to complications such as hemorrhoids and perforation of the intestine, treatment of chronic constipation should be necessary in these patients.

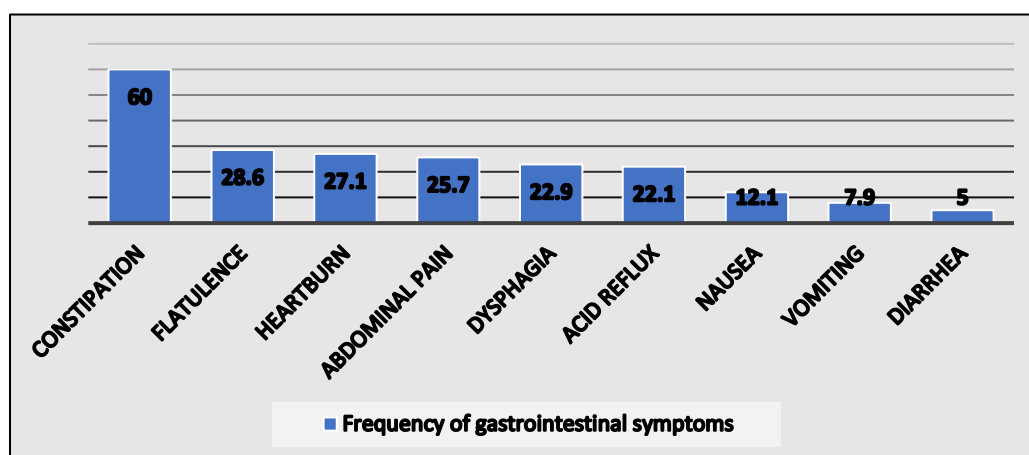


Figure 1. Percentage of gastrointestinal symptoms in the study patients

22.1% of patients in the study group suffer from gastroesophageal reflux disease. They received the necessary acid suppression treatment. Some studies have shown an

association between gastroesophageal reflux disease and increased levels of depression and anxiety (9, 10). Another study in India, which examined the clinical effects of drug

abuse on the gastrointestinal tract, found that drug abuse was associated with intestinal obstruction or small bowel obstruction (11).

The fourth most common gastrointestinal symptom in this study was abdominal pain, and almost more than one - third of the population expressed that the pain was so severe that it disrupts their daily activities. In some cases, the severity of the pain regularly led to a medical center visit. Their anti - inflammatory motility effects and constipation can cause abdominal pain in patients of opioids abuse. In a study conducted in Kerman, 16.3% of cases were with chronic abdominal pain (5). Sandgren et al. first reported chronic abdominal pain in five patients with long - term abuse of opioid analgesics (12).

Diarrhea was the least prevalent symptom. Although diarrhea has many etiologies, most these patients may have been experiencing these conditions secondary to periods of substance withdrawal. In a study of patients with gastroparesis who were scheduled opioid consumption was also observed that diarrhea is the lowest rate among symptom (13). The same result was observed in the Kerman study (5). Finally, our study showed that OBID symptoms are present in most opioid users and most of these people suffer from constipation. Also, the type of substance consumed by the person, the duration of continuous use and cigarette smoking play a role in the incidence of these symptoms.

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CONFLICT OF INTEREST

None

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