Case Report

Impact of Medication History Interview and Patient Counseling in Unidentified Drug Addict: Loperamide; The Poor Man's Methadone

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ABSTRACT

Consequences of inappropriate medication use have been the subject of professional, public and congressional discourse from ages. The pharmacy profession has accepted responsibility for providing patient education and counseling in the context of pharmaceutical care to improve patient adherence and reduce medication-related problems. We often come across many cases where people are not aware of their addiction and the impact it creates on their work, relationships and health. As a result, many of them are unable to quit on their own and treatment is required. This barrier can be broken by the pharmacist by conducting a confidential interview in suspect patients and providing effective counseling to combat addiction. Addiction treatment such as counseling is crucial for helping sufferers to recognize their condition and how their emotional needs are affecting their behavior and health. This can stand as an important step to recover from illness and eventually abstinence.

Case Report

We describe a case of 25-year-old male who was admitted in General medicine with chief complaints of Constipation since 5 days, abdominal cramps. His addiction was left unidentified and a detailed medication history interview reveals that he is on Loperamide since 2 months which was the reason for his admission for severe constipation.

Key words: Medication History Interview, Patient Counseling, Loperamide , Medication related problems, Drug abuse.

INTRODUCTION

Loperamide, sold under the brand name Imodium among others is a medication used to decrease the frequency of diarrhea. It is often used for this purpose in gastroenteritis, inflammatory bowel disease and short bowel syndrome. Loperamide works by slowing down the activity of bowel. This reduces the speed at which the contents pass through and so food remains in your intestines for longer. This allows more water to be absorbed back into body and results in firmer stools that are passed less often.[1] Prescription opioid abuse is a major public health concern and an ongoing epidemic in the United States. Loperamide is a widely available and inexpensive over-the-counter antidiarrheal medication used most commonly with peripheral mu-opioid receptor activity.[1,2] This CNS activity of loperamide is often abused leading to addiction. However, other effects of loperamide are detrimental in large doses.[3] Case reports have proven deaths of patients who abused loperamide in large doses.[4] Since, loperamide is used primarily for treating diarrhea its addiction is often left unidentified.[5] To reduce incidence of medication errors, adverse effects and unnecessary health costs, improved professional rapport between the patient and pharmacist. Lack of information may result in the patient not taking medication the way it intended to be used, which in turn may result in therapeutic failure, adverse effects, additional expenditure on investigations and treatment or even hospitalization. Thus Patient education can address many drug Abuse problems and their consequences by Deaddiction and Rehabilitation Programs.[6] The consent of the patients was obtained for reporting his case.

DOI: 10.5530/ijopp.12.3.44

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Case Report

A 25-year-old male patient was admitted in the hospital with chief complaints of Constipation since 5 days, abdominal cramps from 2 days. He has no past medical history of serious illness, except diarrhea. Past medical history of the patient reveals that he was suffering from Diarrhea 3 months ago and was on loperamide (as suggested by his colleague). He takes mixed diet and his occupation was software engineer. Currently he was being provided symptomatic treatment for his illness and the following medications were prescribed.

Tab. Bisacodyl (15mg, BD);
Inj. Ceftriaxone (1gm, BD);
Inj. Ranitidine (50mg, BD);
Inj. Dicyclomine (10mg, BD).

In the above treatment chart bisacodyl was indicated to treat constipation. Ceftriaxone is prescribed as infective prophylaxis; Dicyclomine was given to treat abdominal cramps and Ranitidine as an ulcerative prophylaxis.

DISCUSSION

We addressed this patient in pre rounds, after complete examination of the case sheet we found that the patient had a past medication history of loperamide. Loperamide is a drug which can be abused. After a brief self-introduction we conducted Medication history interview as a routine practice to review current medical condition and identify causative factor for his illness. We approached patient with well-prepared, structured Questionnaire to obtain relevant information and avoid omissions on a one-on-one confidential interview. To find out the cause some set of questions were framed and asked to patient.

We sorted all answers based on information provided by patient. It reveals that he was on loperamide since past month for diarrhea, recommended by his colleague and it keeps his bowel regular 2 to 3 stools per day. He has taken around 15-30 (30-60mg) tablets of 2mg in a day. We ruled out other underlying causes which include traveler's diarrhea, Red-flag (black and bloody stools), allergy to medications, other medications, OTC, Herbal supplements and other medical conditions. He was negative to all the mentioned conditions. Questions specific to reasons for lopermaide use were asked. By the end of Medication history interview reveals that Constipation in this patient occurred due to overdose of loperamide. And he is now addicted to loperamide. So we planned for counseling using Counseling Tools.[7] We followed different steps in Counseling for effective outcomes, Prepared for the session getting to know his past and present medical and medications to interpret the diagnosis and to understand actual scenario and patients mental and physical status was good this helps us to communicate easily, we used his own language, empathized and explained about his condition. We asked open ended questions like I have a Concern based on the information you shared with me that you are taking more than the recommended amount, this is private and confidential area, you can share with me. Confidential interaction ruled out hesitation by the patient and he was more comfortable. More often, this type of interaction yields more information without any kind of hesitation from the patient. Since, drug addiction leads to a serious physical and mental illness eventually leading to death of the patient. We explained the risk of taking loperamide more than the recommended dose that can cause harmful effects such as respiratory and cardiovascular effects. We also explained the risk of taking self-medication since the patient might not know about the adverse effects and other properties of the drug, saying "I am concerned about your safety and I think it would be best to see physician who can recommend something more suitable for you". ECG, EEG reports were normal in this patient indicating no effects of the drug. This created a positive impact of counseling over the patient. He could understand that drug addiction lead him to this condition. He realized if intervention was not made in this initial stage of drug abuse, the loss, financial burden and illness that would be caused due to drug addiction. There were no potential barriers during counseling. According to the report, between 2010 and 2011, there was a 10-fold increase in web forum postings about oral loperamide abuse. Most (70 percent) of the postings discussed using the drug to self-treat a discomforting opioid withdrawal, while 25 percent focused on using loperamide to simply get high.[8] In Web-based posts study reveals, Almost 70% of posts discussed loperamide as a remedy to self-treat opioid withdrawal symptoms. About 25% of the sample posts discussed issues related to loperamide's potential to cross blood-brain barrier to produce euphoric or analgesic effects. Only 20% expressed negative or ambivalent views regarding its effectiveness. The majority reported using "megadoses" of loperamide, averaging 70 mg per day and in some cases ranging from 100 mg to 200 mg per day (50–100 2mg pills).[9] In another study, three patients were on loperamide. These cases were 25, 14, 16-year-old men and had diarrhea due to phobic and anxiety disorders they are high by abusing loperamide. Psychotherapy was done for two patients with amitriptyline and venlafaxine and one underwent psychotherapy alone and the problem of all three patients was resolved and loperamide was discontinued.[10] In another Case report on loperamide dependency, a 35-year-old man with a 13-year history

of abusing opioids, treatment dose of this drug is 2-8 mg daily. He was dependent to loperamide and used 200 mg of this drug daily with no evidence of arrhythmia.[4] In a recent case series, five patients aged 30-43 years with a history of loperamide abuse and subsequent cardiac complications were reported. In three patients, the arrhythmias were life-threatening. In these patients, loperamide was abused as follows: up to 400 mg of loperamide daily for several weeks, 2 mg loperamide daily for 144 days, escalating use of 792 mg loperamide daily, 120-200 mg loperamide over the 6 hrs and 70 mg loperamide daily for months.[11]

CONCLUSION

While generally loperamide is not considered as drug of abuse, this report illustrates the potential for its abuse and misuse. There are case reports of patients who died with ventricular arrhythmias and other toxicities due to chronic loperamide abuse. Therefore identification, risk prediction, counseling and care are required for loperamide abuse patients. This report establishes the need of pharmacist in healthcare system to bridge the gap between the physician and the patient.

ACKNOWLEDGEMENT

We would like to express our deep appreciation to all those who provided us the possibility to complete this report. This report would not have been possible without the supervision of our professor Mr. Jagadeesh whose contribution in stimulating suggestions and encouragement helped us to coordinate, especially in writing this report.

CONFLICT OF INTEREST

The authors have no conflict of interest.

ABBREVIATIONS

CNS: Central Nervous System; **BD:** Twice daily; **ECG:** Electrocardiogram; **EEG:** Encephalogram; **OTC:** Over - the–counter.

SUMMARY

Working as a pharmacist I describe a case of 25-year-old male who was admitted in General medicine with chief complaints of constipation since 5 days and with abdominal cramps. We addressed this patient in pre rounds, after complete review of the case information I found that the patient had a past medication history on loperamide. With the help of a structured Questionnaire I was able to obtain more detailed information that he was on loperamide since past two month for diarrhea, recommended by his colleague as it keeps his bowel regular (2 to 3 stools per day). He takes more than recommended, tablets (2mg each) (Self Medication) a day. His addiction was left unidentified and a detailed medication history and an interview revealed that he was on Loperamide since two months which could have been the reason for his admission to the hospital for severe constipation.

There were no other underlying causes. We found that his. ECG, EEG reports were normal indicating no effects of the drug. He was administered with the following medicines by the attending Physician: Tab. Bisacodyl (15mg, BD); Inj. Ceftriaxone (1gm, BD); Inj. Ranitidine (50mg, BD); Inj. Dicyclomine (10mg, BD), as his treatment. Further the risk of taking self-medication was explained to him, since the patient might not know about the adverse effects and other properties of the drug. He was advised by the pharmacist to consult a physician.

Conducted Medication History Interview and this created a positive impact of counseling to the patient. He could understand that drug addiction could have lead him to this condition. He realized if intervention was not made in this initial stage of drug abuse, the loss, financial burden and illness could be due to drug addiction.

The Pharmacist identified drug addict which is left unidentified, While generally, loperamide is not considered as drug of abuse, this report illustrates the potential for its abuse. There are case reports of patients who died with ventricular arrhythmias and other toxicities due to chronic loperamide abuse. Therefore identification, risk prediction, counseling and care are required for loperamide abuse patients. This report establishes the need of a pharmacist in healthcare system to bridge the gap between the physician and the patient.

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