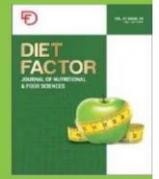




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Assessment of Dietary Intake Among Patients with Peptic Ulcer

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ABSTRACT

One of the major and most common diseases of the stomach is peptic ulcer. It occurs when the mucus secretion in the stomach decreases, acid secretion increases or both at the same time. There are multiple dietary and lifestyle factors that can cause peptic ulcers. However, peptic ulcers can be treated by consuming a balanced diet along with medications. **Objective:** Assessment of dietary intake among patients with peptic ulcers. **Methods:** The assessment was carried out at Services hospital, Lahore. A sample of 100 patients aged between 20-80 years was taken by using non-probability convenient sampling. Data was collected with the help of pre-tested questionnaire and was analyzed by using SPSS version 21.0. **Results:** The results showed that chapatti was most commonly consumed by peptic ulcer patients from the carbohydrates group. Most patients consumed milk and chicken from the protein group while fats were not consumed in abundance. Fruits and vegetables made an integral part of the weekly dietary intake of the patients. **Conclusions:** Patients with peptic ulcers cannot consume spicy foods and fried items. In order to achieve complete cure, they tend to consume foods that provide satiety and do not cause any discomfort. A balanced diet along with proper medication can help alleviate symptoms of peptic ulcers.

INTRODUCTION

Peptic ulcer is one of the most common diseases of the digestive system [1]. Peptic ulcer occurs when acid in the digestive tract erodes the epithelial layer of the stomach or small intestine. This erosion of the epithelial layer results in the formation of wounds that bleed continuously [2, 3]. This creates a painful sensation that may last continuously or from time to time when something is ingested [4]. The digestive tract is coated with a protective mucus layer that protects the internal lining of the digestive system. When the amount of acid increases and proportionally the amount of mucus decreases in the digestive tract, it leads to the formation of sores known as ulcers [5, 6]. Another cause of peptic ulcers is the *Helicobacter pylori* bacteria [7]. *H. pylori* infection causes inflammation of the inner layer of the stomach and intestine and is one of the major causes of peptic ulcers in humans [8, 9]. This infection might get transmitted through contact or via food or water intake [10]. Eating spicy foods, oral intake of pain relievers, smoking, and alcohol intake are some of the major causes of peptic ulcers along with the ones mentioned above [11,12,13]. Worldwide prevalence of peptic ulcers ranges between 10 to 30% with 0.10-0.30% incidence rate per year [14]. In recent years, peptic ulcer incidence and prevalence has lowered mainly due to the accessibility of medical treatment to completely remove *H. pylori* infection and also due to decrease in the prevalence of *H. pylori* infection [15]. On the other hand, increasing use of acetylsalicylic acid (ASA) and other nonsteroidal anti-inflammatory drugs (NSAIDs) are becoming more and more that are linked with adverse gastrointestinal actions [16]. A diet can either heal or aggravate peptic ulcer [17]. If a person continuously eats spicy foods, fried foods or meals with high protein content, this can worsen the symptoms of peptic ulcer [18]. On the other hand, a balanced diet with soluble



fibers, fruits and vegetable with a regular protein and carbohydrate content can help heal peptic ulcer along with medications and can be helpful in maintaining a good health [19,20].

The objective and target of the study is to assess the dietary intake of patients with peptic ulcers and will try to create the awareness for prevention of the disease, so that the morbidity and mortality due to peptic ulcer in the society could be reduced. If not treated well on time, and if patients continue to make food choices that aggravate the disease, the quality of life among patients suffering from peptic ulcer would be decreased so that affecting their functional capacity.

METHODS

A cross sectional study was carried out for a time period of 4 months at Services hospital, Lahore. Non-probability convenient sampling technique was used to select a sample of 100 participants aged between 20 to 80 years. Non-cooperative patients and patients suffering from diseases other than peptic ulcer were not included. Data was collected with the help of a pre-tested questionnaire. SPSS version 21.0 was used to analyze the data.

RESULTS

Below given is the assessment of dietary intake of patients after the onset of peptic ulcer:

Carbohydrates Type of food item	Consumption per week					
	Daily	1-2 times	3-4 times	Once a week	Never	Total
Bread	49	02	06	15	28	100
Chapatti	77	19	04	-	-	100
Paratha	02	16	08	26	48	100
Rice	-	47	01	45	07	100
Legumes	04	44	11	37	04	100
Cereals or porridge	-	31	06	13	50	100

Table 1: Frequency distribution of consumption of carbohydrates among patients with peptic ulcers

Table 1 shows that most consumed food articles belonging to the carbohydrate group is chapatti. Out of 100 patients 77 daily consume chapatti as a staple food. Other articles of the same group that are most consumed by patients with peptic ulcers are bread and rice. Least consumed articles are paratha and porridge. Table 2 shows that patients with peptic ulcers mostly consumed milk from the protein group. From the meat section chicken was most consumed, then was red meat and least consumed was fish. Table 3 shows that people with peptic ulcers consumed fruits and vegetables in proportions ranging from daily to 3-4 times a week, suitable for maintaining a healthy gut and also helpful in relieving the painful symptoms of peptic ulcer. Table 4 shows that 82% patients did not consume cheese at all however only 31% patients never had butter at all. Butter was consumed by 44% patients once or twice a week as compared to cheese which was consumed by only 10% once a week.

Proteins Type of food item	Consumption per week					
	Daily	1-2 times	3-4 times	Once a week	Never	Total
Red meat	-	32	-	41	27	100
Fish	-	03	-	23	74	100
Chicken	-	63	21	05	11	100
Eggs	28	23	41	05	03	100
Yogurt	12	43	24	05	16	100
Milk	46	35	15	04	-	100

Table 2: Frequency distribution of consumption of proteins among patients with peptic ulcers

Fruits and vegetables Type of food items	Consumption per week					
	Daily	1-2 times	3-4 times	Once a week	Never	Total
Starchy vegetables	09	61	21	09	-	100
Non starchy vegetables	18	68	13	01	-	100
Fruits	20	50	26	04	-	100

Table 3: Frequency distribution of consumption of fruits and vegetables among patients with peptic ulcers

Fats Type of food items	Consumption per week					
	Daily	1-2 times	3-4 times	Once a week	Never	Total
Butter	02	44	15	08	31	100
Cheese	-	08	-	10	82	100

Table 4: Frequency distribution of consumption of fats among patients with peptic ulcers

DISCUSSION

A study carried out by Armstrong H *et al* in 2018 explained how the consumption of balanced diet containing all defined food groups i.e. carbohydrates, proteins, fats, fruits and vegetables can overall help better the situation of peptic ulcers. Also, the consumption of these foods can prevent the onset of aggressive symptoms of peptic ulcers. Similar findings were obtained by the present study [21]. This study indicates that most patients who suffer from peptic ulcers consume milk and chicken as a major protein source apart from consuming red meat or fish. Majority of the patients do not feel discomfort after the consumption of chicken is cooked without hot spices. Milk causes bloating in those patients who are either lactose intolerant or have severe peptic ulcers. Results endorsing the findings of the current study were obtained in a research performed by Kim JH *et al* in 2021 [22]. As fat takes more time to digest and results in an increased production of stomach acids, according to the present study, most patients did not consume saturated fats such as butter and cheese as they cause heartburn and pain in stomach. A large fraction of patients consumed fruits and vegetables as a part of their weekly diet. Non-starchy vegetables were consumed more by peptic ulcer patients as compared to starchy ones. A study carried out by Tsang WW *et al* in 2015 showed same results [23].

CONCLUSIONS

As peptic ulcer has multiple causing factors and similarly various outcomes, it also affects the dietary intake of patients suffering from it. People who suffer from peptic ulcer tend to incline more towards consuming diets containing appropriate proportions of fruits and vegetables and lesser frequencies intake of excess proteins and saturated fats. Overall consumption of a balanced diet along with soluble fibers can help relieve the painful symptoms and cure peptic ulcer.

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