

## Assessment Of Dietary Pattern For Patients With Peptic Ulcer

### معرفة النمط الغذائي للمرضى المصابين بقرحة المعدة

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#### الخلاصة

**الهدف:** تقييم النمط الغذائي للمرضى المصابين بقرحة المعدة وإيجاد العلاقة بين النمط الغذائي وبعض الصفات الديموغرافية بين الفئات العمرية والجنس.

**المنهجية:** دراسة وصفية أجريت في مستشفى أمراض الكبد والجهاز الهضمي ومستشفى الكاظمية التعليمي في مدينة بغداد خلال فترة الثالث عشر من آذار ولغاية العاشر من حزيران 2012 حيث تم اختيار عينة غرضية (غير احتمالية) مكونة من (100) مريض مصاب بقرحة المعدة تراوحت أعمارهم ما بين (20-60) سنة وتم استعمال استبانته مصممة من ثلاثة أجزاء تضمن الجزء الأول المعلومات الديموغرافية للعينة والجزء الثاني يتضمن عوامل الخطورة والجزء الثالث يتضمن مؤشرات النمط الغذائي موزعة على (18) فقرة تم جمع المعلومات من خلال استمارة الاستبانة وبطريقة المقابلة الشخصية للمرضى، واستغرقت المقابلة مع كل مريض ما بين (12-15) دقيقة وتم تحليل بيانات الدراسة من خلال استعمال الإحصاء الوصفي الذي تضمن التكرارات والنسب المئوية، علاوة على استعمال الإحصاء الاستنتاجي الذي شمل مربع كاي والقيمة الاحتمالية.

**النتائج:** أظهرت نتائج الدراسة إن أكثر من ثلث المرضى المصابين بقرحة المعدة ضمن الفئة العمرية (20-29) سنة واغلبهم من الإناث، ومن خريجي الجامعات، متزوجون وموظفين حكوميين وان معظم هؤلاء المرضى لا يدخنون ولا يتناولون الكحول وأكثر المصابين بقرحة المعدة دائماً يتناولون الأطعمة الحارة

**الاستنتاجات:** استنتجت الدراسة ان هناك دلالة احصائية ذات مستوى معنوي بين النمط الغذائي والعمر والجنس.

**التوصيات:** أوصت الدراسة بالاتي:

- 1- برنامج تثقيفي يجب أن يصمم لزيادة معلومات الناس حول المرض وللتقليل من خطر الإصابة بالمرض.
- 2- اصدار كتيب يجب أن يهيئ ويقدم للمرضى المصابين بقرحة المعدة كدليل للتكيف مع المرض.

#### Abstract:

**Objective:** To assess dietary pattern that may contribute to the occurrence of peptic ulcer as risk factors and find out the relationships between dietary pattern indicators and some demographic characteristics (age groups & gender) of the patients with peptic ulcer.

**Methodology:** A descriptive study was carried out in liver and digestive disease hospital and Al-Kadhmiya Teaching Hospital in Baghdad city during the period from March/13/2012 to June/10/2012. A purposive (non-probability) sample was selected that consisted of (100) patients with peptic ulcer their age between (20-60) years old. A questionnaire format and observational checklist were used which consist of three parts the first part includes demographic information of the sample, the second part includes risk factors information and the third part includes dietary pattern indicators distributed to (18) items. The data were collected through the utilization of questionnaire and the structure interview technique with peptic ulcer patients, the interview with each patient took approximately (12-15) minutes. The data were analyzed by using descriptive statistical measures which included frequencies & percentage, as well as the use of inferential statistical measures which include Chi-Square ( $X^2$ ) and p-value.

**Results:** The results of the study sample have revealed that more than one third of patients with peptic ulcer were with the age group (20-29) years, mostly females, college graduate, married and government employee (officer). However, the greater number of these patients were non smoker and not drinking alcohol. Most patients with peptic ulcer were (63%) always eat hot foods.

**Conclusions;** The study concluded that there was a significant differences between dietary pattern indicators with age and gender.

**Recommendations:** The study recommended that:

- 1- Educational program should be designed to increase people information toward the disease and to reduce the risk of peptic ulcer.
- 2- A booklet should be prepared and presented to patients with peptic ulcer as guide for the management of the disease.

**Keywords:** Assessment, Peptic ulcer, Dietary pattern.

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## INTRODUCTION:

Peptic ulcer (PU) is one of the most common diseases today. It refers to an eroded lesion in the gastric intestinal mucosa. An ulcer may form in any part of the digestive tract, which is exposed to acid gastric juice, but is usually found in the stomach (Gastric ulcer) and the duodenum (duodenal ulcer). Duodenal ulcers are about ten times more frequent than gastric ulcer and tend to occur in younger people. The incidence of peptic ulcers is four times higher in men than women<sup>(1),(2)</sup>. Peptic ulcer disease is still an important cause of morbidity and mortality in developing countries though its prevalence has shown decrease in developed countries<sup>(3)</sup>. Peptic ulcer-related mortality also increase with age, mainly due to comorbid conditions<sup>(4)</sup>. One in ten people suffer from peptic ulcers in the country today and more worryingly almost 6000 people die from complications that arise due to peptic ulcers. Peptic ulcers should therefore be treated very seriously. Better awareness and obtaining medical attention promptly can help to control the condition effectively, significantly reducing the risk of fatalities<sup>(5)</sup>. Many etiological factors have been labeled for cause of peptic ulcer disease including non-steroidal anti-inflammatory drugs (NSAIDs) and *Helicobacter Pylori* as major causes<sup>(6)</sup>. Besides, few studies have shown, smoking, radiation treatment, tobacco, spicy foods, carbonated drinks and Alcohol are independent risk factors for peptic ulcer disease<sup>(7)</sup>. Nutritional care or diet is of utmost importance in the treatment of ulcer. The diet should be arranged as to provide adequate nutrition to afford rest to the disturbed organs, to maintain continuous neutralization of the gastric acid, to inhibit the production of

acid and to reduce mechanical and chemical irritation. Before as well as after treatment, nutritional care is vital to prevent heal and cure peptic ulcer<sup>(8),(9)</sup>. The life time risk for developing a peptic ulcer is approximately 10%<sup>(10)</sup>. Peptic ulcer disease had a tremendous effect on morbidity and mortality until the last decades of the 20<sup>th</sup> century, when epidemiology trends started to point to an impressive fall in its incidence<sup>(11)</sup>.

The objectives of this study is to assess dietary pattern upon the occurrence of peptic ulcer in the present study.

## METHODOLOGY:

A descriptive, cross-sectional study for a sample of (100) patients with peptic ulcer was carried out in liver and digestive disease hospital and Al-Kadhmiya teaching Hospital in Baghdad city during the period from the 13<sup>th</sup> March to 10<sup>th</sup> June 2012. To reach the goals of present study the researcher structured questionnaires which composed from three parts

Part I: Demographic information sheet: It was consisted of 5 items which included Age, gender, educational level, marital status and occupation.

Part II: Risk factors information: It was comprised of 3 items which include smoking, number of smoked cigarette and drinking Alcohol.

Part III: Dietary pattern indicators information: It was consisted of 18 items. The data were collected through the utilization of questionnaires and the structure interview technique with peptic

ulcer patients. The interview with each patient took approximately (12-15)

minutes. Data obtained were analyzed by using percentage and Frequency.

## RESULTS:

**Table1. Demographic Characteristics of the study sample**

Variables	Groups	No.*	%
Age Groups	20-29	38	38%
	30-39	12	12%
	40-49	31	31%
	50-59	19	19%
	Total	100	100%
Gender	Male	48	48%
	Female	52	52%
	Total	100	100%
Educational level	Not able to read& write	11	11%
	Able to read& write	9	9%
	Primary school graduate	14	14%
	Secondary school graduate	32	32%
	College graduate	34	34%
	Total	100	100%
Marital status	Married	56	56%
	Un married	18	18%
	Divorced	7	7%
	Widow	4	4%
	Separated	15	15%
	Total	100	100%
Occupation	Student	10	10%
	Government employee	40	40%
	Retired	8	8%
	Self- employee	7	7%
	Un employed	9	9%
	House wife	26	26%
	Total	100	100%

No\*=Number

Table(1) shows that(38%) patients with peptic ulcer at age between (20-29) years ago, more than half of the study samples were females, (34%) of patients were college graduate , (56%) of them were married and(40%) were government employees.

**Table2. Information related factors for (100) patients**

Related factors	Response	No.	%
Smoking	Yes	43	43%
	No	57	57%
	Total	100	100%
Drinking Alcohol	Yes	5	5%
	No	95	95%
	Total	100	100%

Table 2. indicated that the greater proportion of patients with peptic ulcer were not smokers (57%), and most of them(95%) have not drink Alcohol.

**Table3. Distribution of(43) smoking patients according to number of cigarette smoking**

No. of cigarette smoking	No.	%
≥10	5	5%
11-20	3	3%
21-30	19	19%
31-40	11	11%
41-50	2	2%
51-60	3	3%
Total	43	43%

Table(3) revealed that the greater of smoking patients approximately(30) cigarettes per day(19%).

**Table4. Distribution of the study samples according to the dietary pattern Items**

Items	Always		Sometimes		Never	
	No	%	No	%	No	%
<b>1- I like to eat irregular meals</b>	39	39	31	31	30	30
<b>2- I like to eat large amount of meals</b>	27	27	49	49	24	24
<b>3- I like to eat hot food</b>	63	63	27	27	9	9
<b>4- I like to eat chili</b>	61	61	25	25	14	14
<b>5- I like eating Ketchup</b>	43	43	32	32	25	25
<b>6- like to eat with chili and vingar</b>	60	60	29	29	11	11
<b>7- I didn't eat vegetables and fruits with cellulose</b>	24	24	49	49	27	27
<b>8- I like to eat food quickly with out chewing</b>	27	27	40	40	33	33
<b>9- I like to eat citrus fruit</b>	61	61	28	28	11	11
<b>10- I like to eat food rich with fat material</b>	32	32	45	45	23	23
<b>11- I like to eat light meal before sleeping</b>	41	41	32	32	27	27
<b>12- I like drink water with food</b>	58	58	28	28	14	14
<b>13- I like drink tea</b>	59	59	34	34	7	7
<b>14- I like drink coffee</b>	34	34	36	36	30	30
<b>15- I like drink cacao and milk</b>	33	33	41	41	26	26
<b>16- I like drink cola</b>	52	52	31	31	17	17
<b>17- I like to eat very boiling food</b>	46	46	32	32	22	22
<b>18- I don't eat break fast</b>	28	28	38	38	34	34

Table (4) shows that the highest frequency (63%) were always to eat hot foods, (61%) always eating chili and citrus fruits and (60%) always eating with chili and vingar.

**Table5. Association between dietary pattern for patients and age groups**

Age	F& %	Dietary pattern indicators		
		Always	Sometimes	Never
20-29	F	55	22	23
	%	55	22	23
30-39	F	41	30	29
	%	41	30	29
40-49	F	38	23	39
	%	38	23	39
50-59	F	22	29	49
	%	22	29	49
Total	F	156	104	140
	%	156	104	140
$X^2= 12.88$		df= 6	P-value <0.05	

Table(5) reveals that significant differences relative to age groups and dietary pattern.

**Table6. Association between dietary patter and gender**

Gender	F& %	Dietary pattern indicators			Total
		Always	Sometimes	Never	
Male	F	23	15	10	48
	%	23	15	10	48
Female	F	30	13	9	52
	%	30	13	9	52
Total	F	53	28	19	100
	%	53	28	19	100
$X^2= 13.646$		df= 2	P-value <0.05		

Table(6) indicated that there were significant differences between gender and dietary pattern.

## DISCUSSION:

The present results revealed that there were (38%) from patients with peptic ulcer at age(20-29) years ago, females more than males. This result is in agreement with a study which conducted by Fry and Sandler in (2003), (38) emphasized that peptic ulcer more likely

at age(20-60) years old<sup>(12)</sup>. Another study in the United States in (2004) demonstrated that(75%) have evidence of peptic ulcer, its prevalence in this population is about(20%) among people born after 1950 and higher among older people<sup>(13)</sup>.

The finding coincide with the finding of Amit,et.al., reported that peptic ulcer constitute (8.7%) more in women and(20-29) years old<sup>(2)</sup>. The results of the present study indicated that the majority of the study samples (34%) were college graduate, (56%) married and(40%) government employee(officer).

Motofumi, et.,al., who stated that the patients with peptic ulcers were more often in college graduate patients, married less often unmarried or showed antisocial/ criminal indications of anti sociality/ criminality<sup>(14)</sup>. Sharobaro in Russian in 2002 showed the examination of 68 patients with peptic ulcer has found correlations between relations in married couples<sup>(15)</sup>.

Gonzalo, et.,al., who claimed that 90% of patients with peptic ulcer admitted to holding a job preoperatively despite their disease. However, 10% of patients were on disability as a source of income<sup>(16)</sup>.

Related to the study sample the majorities of the studied samples (57%) were non- smokers, they smoked approximately 30 cigarettes per day and also showed that (95%) of patients did not Drink Alcohol. The results of the present study agree with the study which was done by Masaki,et.,al., in Japanese smokers who mentioned that cigarette smoking is associated with an increased risk of peptic ulcer and gastro esophageal reflux disease<sup>(17)</sup>.

Domino, et.,al., who reported that alcohol consumption may not be the direct cause of ulcer, those who drink it often are more likely to develop ulcer<sup>(18)</sup>.

Schwesinger, et.al., in Texas who stated that peptic ulcer disease has been steadily declining over the past 20 to 30 years, especially in men and in patients who are less than 65 years of age and in smokers<sup>(19)</sup>.

The finding of the present study revealed that (63%) of the study sample always used to eat hot foods, (61%) eating chili and citrus fruits and(60%) always eating with chili. These finding coincide with the finding of Kumar, et.al., who indicated that the male: female ratio was 11:4. Overall, Helicobacter Pylori infection was prevalent in 93.3% of ulcer patients. Patients who took spicy food had a significantly higher rate of peptic ulcer disease. Smoking and alcohol intake did not effect Helicobacter Pylori status in patients<sup>(20)</sup>.

The results of the study revealed that there were significant differences between dietary pattern indicators with age groups. Garrow and Mark H (2010) in African who stated that the overall prevalence of peptic ulcer is(8.4%). A significant increased risk of ulcer history is associated with older age<sup>(21)</sup>. The finding reveals that there is significant association between dietary pattern indicators and gender. As peptic ulcer is more frequent in women after menopause, suggesting that sex hormones may be important in the etiology of the disease.

## CONCLUSIONS:-

The study concluded that More than half females at age (20-29) years ago experienced greater risk of having peptic

ulcer. Married and college graduate education, and majority of them were governmental employees had presented higher exposure to peptic ulcer due to the risk of social occupational stress and there was a significant association between dietary pattern with age and gender.

### RECOMMENDATIONS:

The study recommended to:

- 1- Education program should be designed to increase people information toward the disease and to reduce the risk of peptic ulcer.
- 2- A booklet should be prepared and presented to patients with peptic ulcer as guide for the management of the disease.

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