

THE EFFECT OF ECONOMIC SANCTION ON THE INCIDENCE OF PEPTIC ULCERATION IN BASRAH - IRAQ.

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Summary A retrospective study of the 6184 patients who had upper gastroduodenal endoscopy in a 10 years period (1984-1994) including the period of economic sanction on our country. Of those patients, 1997 patient had peptic ulceration. The effect of sanction on the incidence and factors causing peptic ulceration was demonstrated in this study. There was an increased incidence of PU during the sanction period (36%) compared with the presanction period (27%). The peptic ulcer became more prevalent during sanction in younger age group, and there was an increase in the incidence of females affected. Those who were smoker and alcohol consumer, have increased incidence of PU in the stressful sanction period. There was a decrease in the incidence of PU in the rural area during the sanction.

Introduction

The twentieth century has showed a remarkable rise and fall in the incidence of peptic ulceration (PU), and despite great strides in our understanding of the pathophysiology of ulcer disease, we have no convincing explanation for these changes. The disease has become markedly less common in the most western societies in the past decade, however it must not be assumed that peptic ulceration is no longer a significant problem¹.

Although death from peptic ulceration is relatively uncommon, disability due to the disease represent a major health problem. Thus 10% or more of western population may develop the disease at some time in their lives, and the frequency is high in many underdeveloped areas. Peptic ulcer incidence fluctuates from time to time and from place to place indicating interplay of many environmental and socio-economic factors².

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It is nevertheless clear, that at least in communities with a western pattern of civilization, ulcer disease has changed in type and frequency. Before 1900 A.C., gastric ulcer predominated and tended to be a disease of a younger women, however at the turn of the century, duodenal ulcer became more frequent particularly in men³. Ulcer proved to be a more common disease in individuals who had been habitual consumers of alcohol, smoking and coffee, whilst a fibrous residue diet tend to be protective⁴.

The aim of this study is to show mainly the effect of economic sanction and other environmental factors on the incidence of peptic ulceration (gastric and duodenal ulcers) in Basrah city.

Patients and methods

This retrospective study included 6184 patients who were admitted to Basrah General Hospital and Basrah Teaching Hospital in the period 1984-1994. Those who were re-endoscoped more than once for any

reason, were excluded from this study. The chief complaint of all patients were epigastric pain and dyspepsia. All patients were examined thoroughly, and upper gastroduodenal endoscopy were done for them by two qualified gastroenterologists. Data regarding age, sex, smoking, alcohol, and place of residency were recorded. Data were assigned into two periods for comparison of the incidence of chronic peptic ulceration; the presanction period, and the economic sanction period (1991-1994).

Results were analyzed statistically using Chi-Square test for testing the difference between presanction and sanction periods records.

Results

Of the 6184 patients who underwent upper gastroduodenal endoscopy, 1997 were proved to have peptic ulceration (1950 case of duodenal ulcer & 47 case of gastric ulcer) as shown in table I.

Year	Patients had ulcer		Patients without ulcer		Total
1984	30	22%	104	78%	134
1985	49	25%	145	75%	194
1986	72	29%	177	71%	249
1987	80	31%	178	69%	258
1988	79	28%	202	72%	281
1989	171	29%	461	71%	632
1990	203	25%	610	75%	813
1991	197	32%	418	68%	615
1992	331	37%	594	63%	895
1993	445	40%	676	60%	1112
1994	340	34%	661	66%	1001
Total	1997	32.3%	4187	67.7%	6184
D.U.	1950				
G.U.	47				

Table I: The distribution of diagnosed peptic ulcer proved by endoscopy during the ten years period.

Before the sanction, 2561 patients were endoscoped and only 692 patient (27%) were proved to have peptic ulceration. From

3623 patient endoscoped after sanction only 1304 (36%) have peptic ulceration as demonstrated in table II.

Period	Those have ulcer		Those without ulcer		Total
Before 1991	692	27%	1869	73%	2561
After 1991	1304	36%	2319	64%	3623
Total	1997		4187		6184

Table II: Distribution of diagnosed peptic ulcer proved by endoscopy during presanction and sanction periods.

Figure 1 shows distribution of peptic ulceration in relation to age groups, which showed that PU was commoner in elderly patients in presanction period, while it became more common in younger age group in the sanction period.

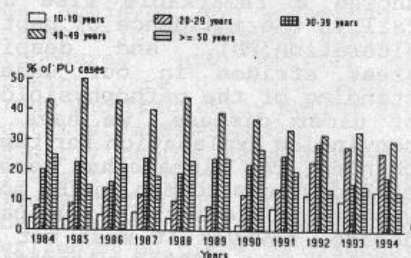


Fig.1: distribution of PU cases according to age.

Sex distribution demonstrated that males are more prone to PU than females, and in the sanction period, the proportion of females having PU had increased as shown in figure 2. Figures 3 & 4 showed the effect of smoking and number of cigarettes on the incidence of peptic ulcer. The smoking habit has a positive relation to the incidence of PU, also the number of cigarettes smoked per day. The highest incidence of PU was recorded in those who smoked more than 20 cigarettes per day.

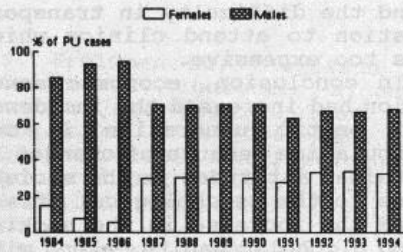


Fig.2: Distribution of PU cases according to sex.

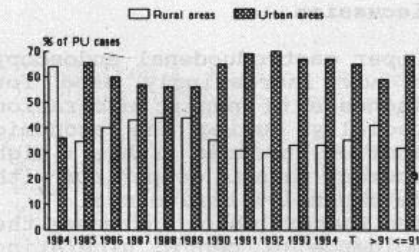


Fig.5: Distribution of PU cases between Urban and Rural areas.

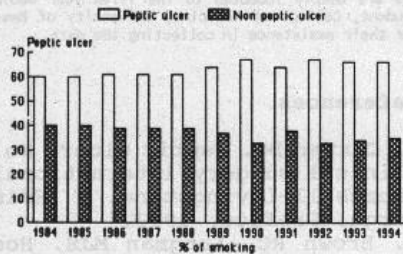


Fig.3: The relation of smoking with peptic ulcer.

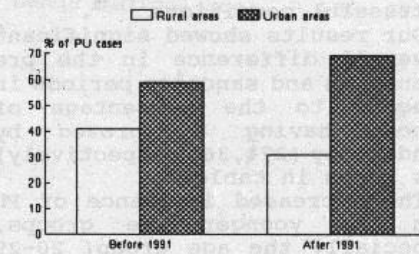


Fig.6: Distribution of PU cases according to locality.

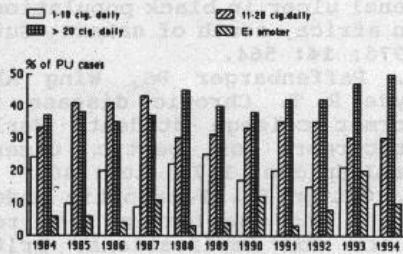


Fig.4: Distribution of smoker patients according to no. of cigarettes/day.

The positive relation of alcohol consumption to the incidence of PU was demonstrated in fig.7 which also showed that non alcoholic patients who had PU, had an increased incidence in the sanction period.

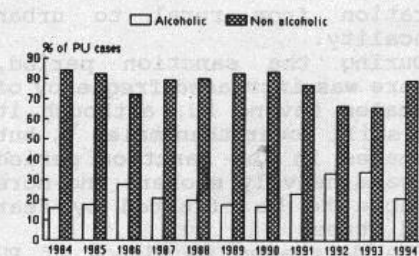


Fig.7: Distribution of PU cases according to alcohol consumption.

Urban population were more prone to have PU than rural population as shown in fig.5, in the sanction period the rural population that had PU had become less in comparison with the presanction period as shown in fig.6 .

Discussion

Upper gastroduodenal endoscopy is now increasingly used for diagnosis of peptic ulceration specially during the economic sanction, because it has a high accuracy rate in comparison with the expensive barium meal⁵⁻⁷.

The factors which increases the incidence of peptic ulceration in our population and goes with the literature include: cigarette smoking, alcoholism^{8,9}, place of residency¹⁰, and stressful conditions¹¹⁻¹³.

Our results showed significant overall difference in the pre sanction and sanction periods in regard to the percentage of those having PU proved by endoscopy (27%, 36% respectively) as shown in table 2.

The increased incidence of PU in the younger age groups, specially the age group (20-29 years) in the sanction period in contrast with the higher incidence of PU among elderly (40-49 years) in the presanction period, a fact which is against what is written in the literature¹⁴, can be explained on the bases that young people are more susceptible to stressful conditions of the sanction, the smoking habit had been increased during sanction, and young people had more interest in immigration from rural to urban locality.

During the sanction period, there was increased frequency of females having PU, although it is still lower than males¹⁴, but females in the sanction period became heavily smokers and more liable to be affected by fear and stress.

The decreased incidence of PU in the rural area during sanction period (31%), was due to the immigration of people to urban area, high roughage diet,

and the difficulty in transportation to attend clinics which is too expensive.

In conclusion, economic sanction had increased the incidence of peptic ulceration in our population because of changes in ethical attitudes in the society due to the psychological stress and the increase in the smoking and alcoholic habits, along with other factors of immigration to urban area.

Acknowledgement :

We are deeply indebted to the fifth year medical student, College of Medicine, University of Basrah for their assistance in collecting the data.

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