

A Study of Association Between Dietary Habits And Peptic Ulcer In M.B.B.S Students in A Private Medical College, Puducherry.

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Abstract:

Background: Peptic ulcers are focal defects in the gastric or duodenal mucosa that extend into the sub mucosa or deeper. It is one of the leading causes for high morbidity and mortality among all age group throughout the world. No study has been done about association between dietary habits and peptic ulcer in M.B.B.S., students, so we have chosen to study about this.

Objectives: To analyze the association between dietary habits and peptic ulcer.

Methodology: This is a descriptive study which was done among the medical students in a private medical college, Puducherry. The study was conducted using a pretested and a predesigned questionnaire for collecting the data. The data is collected & analyzed by using Statistical Package of Social Science (SPSS) 18.0 version.

Result: In our study, 228 (45.6%) were male and 272 (54.4%) were female students. 82.02%, 74.26% and 82.02%, 68.75% of male and female take spicy foods often and food often from outside places [junk foods] respectively. Among all, only 39.91% of male & 47.79% of female were diagnosed to be having peptic ulcer.

Conclusion: In our study we found that, there is an association between dietary habits and peptic ulcer. By reducing the frequency of taking spicy foods, and foods from outside places, and following proper timing of food intake will prevent peptic ulcer.

Key words: Spicy foods, breakfast, outside food and peptic ulcer.

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I. Introduction:

Peptic ulcers are focal defects in the gastric or duodenal mucosa that extend into the sub mucosa or deeper. It is characterized by high acidity resulting in mucosal erosions causing extreme pain and discomfort. By definition, mucosal erosions should be equal to or exceed 0.5 cm.^[1] It is the end result of an imbalance between the digestive fluids in the stomach and the duodenum. The stomach and the duodenal lining have several mechanisms that prevent ulcers from developing. A coating of mucus protects the stomach lining from the effects of acidic digestive juices where food and other substances in the stomach neutralize acid. The life time for developing a peptic ulcer is approximately 10%^[2] Peptic Ulcers can be broadly classified into Gastric ulcer and Duodenal Ulcer. Gastric ulcers occur anywhere in fundus, body and antrum. Duodenal Ulcers are four fold commoner than gastric ulcer. It is identified by the most common symptom i.e. the epigastric pain occurs typically before meals or at night which is relieved by eating.^[3]

Sometimes an ulcer can penetrate the muscular wall of the stomach or Duodenum. This penetration causes intense, piercing, persistent pain. And even anterior wall perforation can create an opening into the peritoneal cavity and posterior wall perforation will bleed due to involvement of corresponding vessel behind in which vomiting blood is the common symptoms. It is one of the leading cause for high morbidity and mortality among all age group throughout the world. No study has been done about association between dietary habits and peptic ulcer in M.B.B.S., students, so we have chosen to study about this.

Objectives

The objective of the study was to analyze the association between dietary habits and peptic ulcers in M.B.B.S., students in a private medical college, Puducherry

II. Methodology

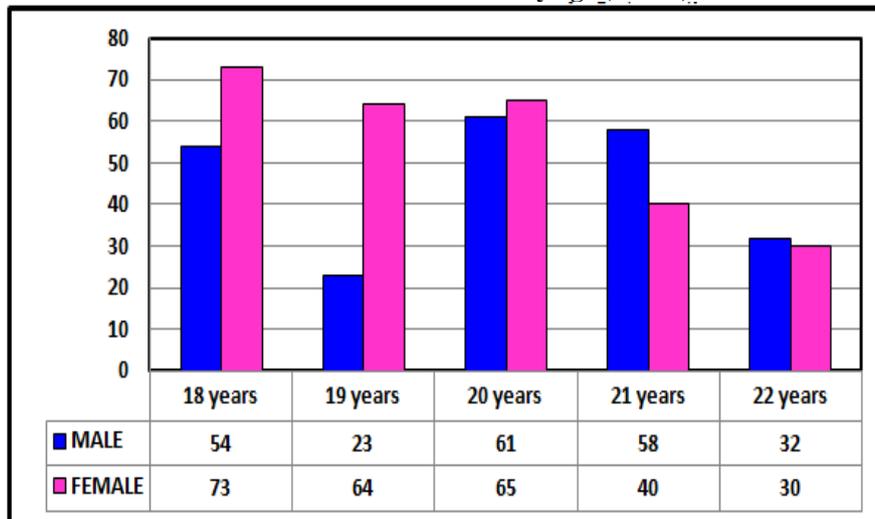
This is a descriptive study which was done among the medical students in a private medical college, Puducherry. The study was conducted on 500 medical students using a pretested and a predesigned questionnaire in a private medical college, Puducherry. Questions regarding the dietary habits such as frequency

of intake of spicy foods, non - vegetarian foods, and food taken from outside restaurants, smoking, alcohol, drinking habits like consuming tea/coffee, carbonated drinks and timing of food intake were asked. The data is collected & analyzed by using SPSS Software version 18.

III. Results

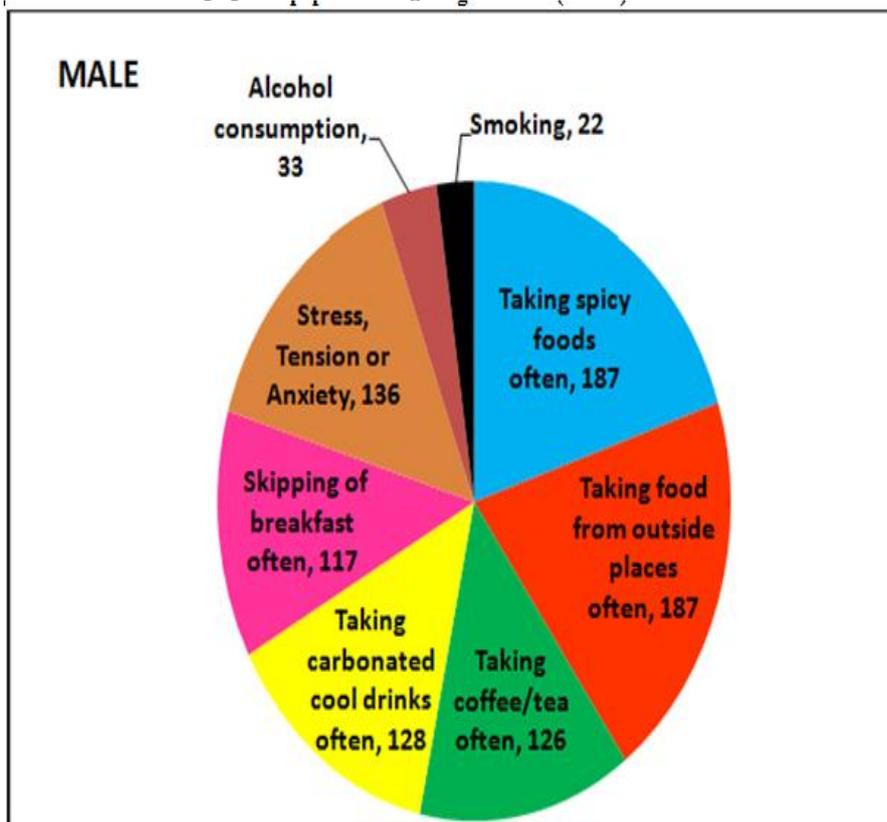
This cross sectional study was conducted a private medical college, Puducherry with a study population of 500 medical students. A questionnaire was used to collect the information. A total of 500 students were questioned and the information regarding the dietary habits and symptoms of peptic ulcer were collected. In our study, 228 (45.6%) were male and 272 (54.4%) were female students.

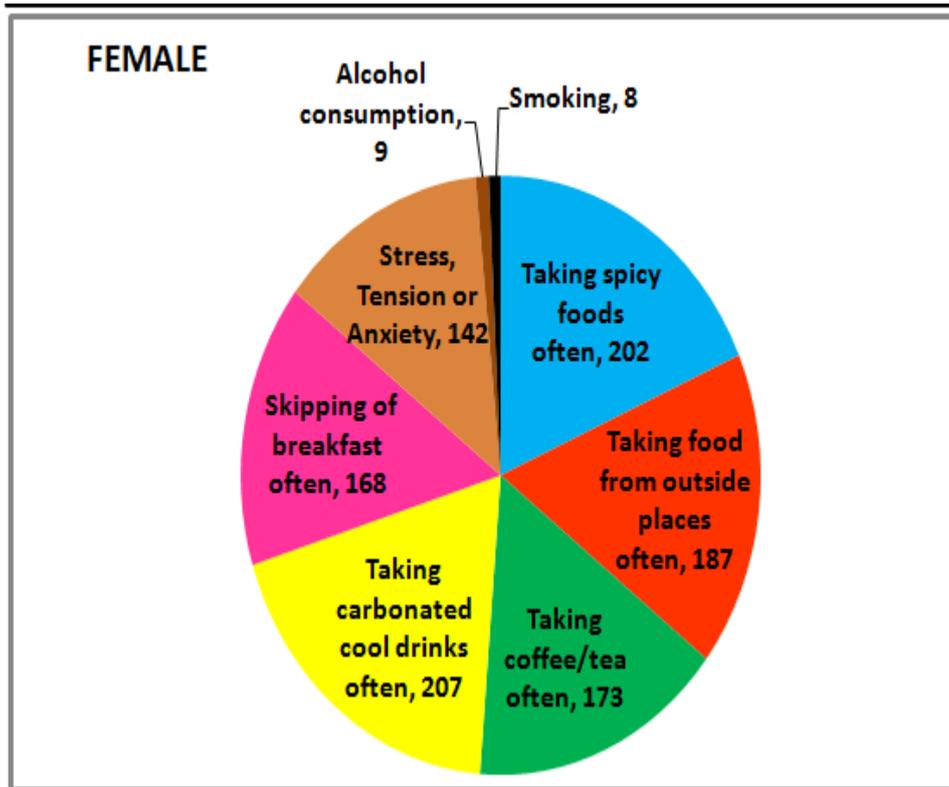
Distribution of the students by age (n=500)



The mean age of students was 19.76 years.

Distribution of risk factors for peptic ulcer among students (n=500)





Symptoms & diagnosis of peptic ulcer & awareness of peptic ulcer among students (n=500)

		MALE		FEMALE	
		Number	Percent	Number	Percent
(i) Burning sensation in the epigastric region	YES	120	52.63	149	54.78
	NO	108	47.37	123	45.22
(ii) Pain in the epigastric region	YES	147	64.47	182	66.91
	NO	81	35.53	90	33.09
(iii) Abdominal bloating	YES	165	72.37	221	81.25
	NO	63	27.63	51	18.75
(iv) Diagnosed to have peptic ulcer	YES	91	39.91	130	47.79
	NO	137	60.09	142	52.21
(v) Awareness of association of dietary habits with peptic ulcer	YES	189	82.89	242	88.97
	NO	39	17.11	30	11.03

(i) & (ii) shows 52.63% of male & 54.78% of female have burning sensation in epigastric region and 64.47% of male & 66.91% of female have pain in epigastric region often. In contrast, 47.37% of male, 45.22% of female and 35.53% of male, 33.09% of female did not complaints of any pain. Most of the students in (iii) illustrates 72.37% of male & 81.25% of female have abdominal bloating while 27.63% of male & 18.75% of female did not have any symptoms.

(iv) finding signifies 39.91% of male & 47.79% of female were diagnosed to have peptic ulcer.

(v) 82.89% of male & 88.97% of female have the awareness of association of dietary habits with peptic ulcer. 17.11% of male & 11.03% of female did not have the awareness of association of dietary habits with peptic ulcer.

IV. Discussion

Peptic ulcer disease represents a serious medical problem nowadays. Many studies were done about the incidence, prevalence, causes, effects, complications and other factors of peptic ulcer disease but even after several advancements in the study, the disease is still persisting at a large scale. It is a disease that is predominantly affecting the young and old but mostly the adult group. Peptic ulcer was rare before the 1800s. Duodenal ulcers were rare until about 1900 and then became most common condition during the first half of the 20th century^[4]. The lifetime likelihood of developing peptic ulcer is about 10% for males and 4% for

females.^[5]To our knowledge, this is the first study to document the correlation between dietary habits and peptic ulcer among medical students in South India, Puducherry.

Managing acid reflux is important because it is related to stomach ulcers. Spicy foods, such as chillies, hot peppers and hot sauce can increase stomach acid, trigger acid reflux and worsen symptoms associated with stomach ulcers. In our study 53.07% of male, 52.57% of female prefer eating spicy foods and 82.02% of male & 74.26% of female have the habit of taking spicy foods often and 82.02% of male & 68.75% of female have the habit of taking food from outside places often. This shows majority of the students prefer eating spicy and outside foods. In our study male predominance is seen in both spicy and outside foods taking often with 82.02% each. According to a study conducted by the "Medical Clinics of North America," proposed that caffeinated and decaffeinated coffee and tea should be avoided because they stimulate acid production and can cause indigestion, especially in individuals with stomach ulcer^[6,7]. The University of Maryland Medical Center (UMMC) also recommends avoiding carbonated beverages, such as soda, for the same reason. In our study, 55.26% of male and 63.60% of female students consume coffee/tea more often. Female dominance is noted in our study with 76.10% who consume carbonated cool drinks where males are around 56.14%. Some studies found a strong association between peptic ulcer and stress (a psychosocial factor), with the development and recurrence of ulcer disease. However, ulcers are related to stress in only 30–65% of the patients.^[8] But in our study 59.65% of male & 52.21% of female perceive symptoms of peptic ulcer during stress. Some researchers confirmed that alcohol intake increases gastro esophageal reflux (GERD), which is known to aggravate stomach ulcers. Alcohol can irritate and erode the lining of the stomach and small intestine and should be avoided by individuals with stomach ulcers because of the potential for bleeding and inflammation.^[9] In our finding, alcohol and smoking place a least role with 14.47% male, 3.31% female and 9.65% male and 2.94% female respectively. Skipping of meals allows gastric acid to directly act on surface mucosa of the stomach causing irritation which ultimately leads to gastric ulcers. In our study majority of the students skips morning breakfast. Of which 51.32% of male & 61.76% of female were skipping breakfast often.

V. Conclusion

On analyzing the data collected from 500 medical students, we have found that, there is association between dietary habits and peptic ulcer. Though smoking and alcohol are one of the risk factors for peptic ulcer, they are less common among college students but still further study is needed. By reducing the frequency of taking spicy foods, and foods from outside places, and following proper timing of food intake will prevent peptic ulcer.

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