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### A study on prevalence of smoking on peptic ulcer: a survey

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#### ABSTRACT



Cigarette smoking appears to be a risk factor for the development, maintenance, and recurrence of peptic ulcer disease. Peptic ulcer is an inflammatory bowel disease (IBD) that causes long-lasting inflammation and ulcers (sores) in our digestive tract. Ulcerative colitis affects the innermost lining of your large intestine (colon) and rectum. Smoking has an inconsistent effect on gastric acid secretion, but it does have other effects on upper gastrointestinal function that could contribute to the pathogenesis of peptic ulcer disease. The purpose of the study was to assess the role of cigarette smoking in ulcer. An online prospective questionnaire based survey was carried out in 100 individuals who were selected in random and their responses were recorded and the results were analysed. The present study suggests that now, most ulcer perforations may arise among individuals (especially mens) aged above 25 are caused by smoking. We found a very strong association between current cigarette smoking and ulcer perforation from these survey.

**Keywords:** inflammatory bowel disease; Peptic ulcer; smoking.

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Research Article

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#### INTRODUCTION

Peptic ulcer is an inflammatory bowel disease (IBD) that causes long-lasting inflammation and ulcers (sores) in our digestive tract. Ulcerative colitis affects the innermost lining of your large intestine (colon) and rectum. Symptoms usually develop over time, rather than suddenly. Ulcerative colitis can be debilitating and can sometimes lead to life-threatening complications. While it has no known cure, treatment can greatly reduce signs and symptoms of the disease. Cigarette smoking appears to be a risk factor for the development, maintenance,

and recurrence of peptic ulcer disease. Smoking has an inconsistent effect on gastric acid secretion, but it does have other effects on upper gastrointestinal function that could contribute to the pathogenesis of peptic ulcer disease. The aetiology of the majority of ulcer perforations is not known<sup>[1,2]</sup>. Current use of nonsteroidal antiinflammatory drugs (NSAIDs) has been shown to increase the risk for ulcer perforation 7–8 times, and seems to account for about a quarter of the events. The role of Helicobacter pylori infection in ulcer perforation is uncertain<sup>[3,4]</sup>.

#### MATERIALS AND METHODS

An online prospective questionnaire based survey was carried out in 100 individuals who were selected in random and their responses were recorded and the results were statistically analyzed.

#### Data collection

Respondents completed the online structured form which composed of checkbox questions regarding lifestyle, food habits, use of drugs.

#### Data analysis and evaluation

The responses to the questionnaire were analysed performing descriptive statistics. Data were analysed using SPSS version 11.0. The level of statistical significance was set at  $p < 0.05$ .

## RESULTS

About 100 individual responses were recorded and among them 73.3% belonged to the age group 20-30 and 85.9% were males. 63.55% [n=96] are currently using cigarettes and 52.2% [n=69] are using cigarettes more than 1 year and 35.9% [n=92] are addicted to smoking. 87.2% [n=94] does not have family history of peptic ulcer and 25.4% [n=71] have stomach illness after using cigarettes and 51.6% [n=93] shown to have color change in feces (brown, darken etc). 95.6% [n=91] not have any long term use of NSAIDs and 94.6% [n=93] not have any symptoms of Zollinger-ellison syndrome. Most of them have symptoms like burning sensation (44.1%), heart burn (33.5%), weight loss (34.4%), nausea or vomiting (20.4%) [n=93]. Following are some of the results.

Are you currently use cigarettes?

96 responses

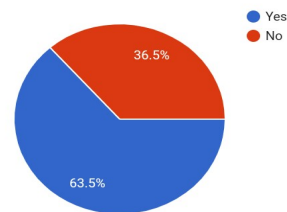


Figure 1: Among 100 individuals 63.5% respondents currently using cigarettes

Are you addicted to smoking?

92 responses

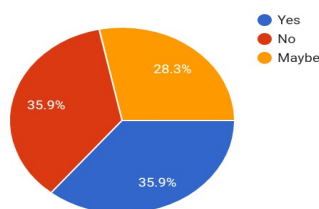


Figure 2: 35.9% respondents addicted to smoking

Is there any family history of peptic ulcer?

94 responses

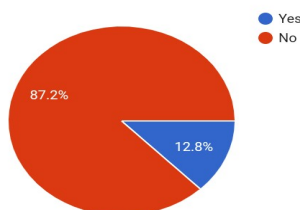


Figure 3: 87.2% respondents does not have any family history of peptic ulcer

Do you have any of the following symptoms?

93 responses

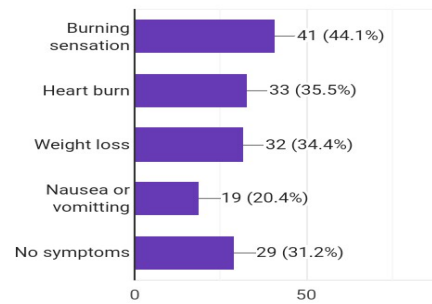


Figure 4: 44.1% have burning sensation an 35.5% have heart burn

Do you have any long term use of NSAID drugs such as aspirin, ibuprofen?

91 responses

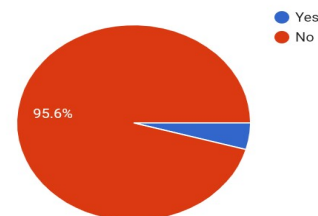


Figure 5: 95.6% respondents not have any longterm use of NSAIDs

## DISCUSSIONS

The present study suggests that now, most ulcer perforations may arise among individuals (especially mens) aged above 25 are caused by smoking. I found a very strong association between current cigarette smoking and ulcer perforation from these surveys.

## CONCLUSIONS

From this survey study we can conclude that smoking is very common among individuals. Most of the individuals shows symptoms of ulcer after the long term use of use smoking. It is a main risk factor for ulcer perforation and have effects on upper GIT that lead to pathogenesis of ulcer. Smoking cessation may help to avoid the ulcer perforation.

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