Significant Associations Between Chronic Gastritis, Irritable Bowel Syndrome and Depression

Mehmet Rami Helvaci, Emine Cosar, Sibel Kabay

Hospital of the Dumlupinar University, The central campus, 43100, Kutahya, Turkey

Abstract: About one third of people report recurrent upper abdominal symptoms, mostly defined as dyspepsia and most of applications to primary health centers are due to this reason. Although several pathologies may be the underlying cause of dyspepsia, mostly Chronic Gastritis (CG) and Irritable Bowel Syndrome (IBS) come in front of us. Psychological factors seem to be crucial for development of them. We have randomly taken 187 consecutive patients with upper abdominal discomfort. Endoscopic visualizations performed and sample biopsies have been obtained from required cases. History of Antidepressive Drug (AD) usage, at least for a period of one year, has been learned. IBS has been diagnosed according to Rome II criteria. Student T test has been used as the method of statistical analysis. Prevalences of IBS and AD usage have been 56.84 and 40.27% in patients with CG, whereas 22.82 and 25.67% in patients without CG (p<0.001 and <0.01), respectively. Similarly, prevalences of CG and AD usage history have been 72.00 and 43.54% in cases with IBS, whereas 36.60 and 25.00% in cases without IBS (p<0.001 and <0.01), respectively. Again prevalences of CG and IBS have been 64.58 and 56.25% in patients with AD usage history, whereas 43.87 and 35.71% in patients without it (p<0.01 for both), respectively. There are statistically significant relationships between CG, IBS and D and vice versa. Keeping in mind these associations will be helpful during follow up of CG and IBS patients for physicians.

Key words: Chronic gastritis, irritable bowel syndrome, depression

INTRODUCTION

When specifically asked, about one third of people report abdominal symptoms. Their complaints are commonly called as dyspepsia. Dyspepsia is defined as chronic or recurrent upper abdominal pain or nausea. In practice, every possible symptom arising from the gastrointestinal tract, except jaundice and bleeding, could be collected under this heading. A large number of organic diseases may be the underlying cause of dyspepsia. Diseases that may initially be defined as dyspepsia include chronic gastritis (CG), esophagitis, symptomatic gastroesophageal reflux without esophagitis, duodenal and gastric ulcers (DU, GU), lactose intolerance, gallstone disease, malignancy, giardiasis, celiac disease, erosive gastritis and duodenitis, chronic pancreatitis and irritable bowel syndrome (IBS), but probably IBS and CG are the most common ones among all of the above conditions.

IBS and CG are believed to be found in 30-50% of adults. It is difficult to find a person taking into account such an approach to the problem. But still most of applications to gastroenterology polyclinics and primary health centers are due to the above problems. For instance, the clinical term of 'gastritis', which is used to describe all of the upper abdominal complaints before any differential diagnosis, accounts for 2% of all outpatient consultations in Sweden and it is by far the most commonly used gastroenterological diagnosis in this country[1]. Gastric acid is probably not involved in etiology but psychological factors seem to be crucial for the development of CG and IBS. Infiltration of neutrophils and monocytes into the gastric mucosa is the hallmark of chronic gastritis[2]. Additionally microscopic examination shows stereotypical changes in epithelium such as degeneration, focal intestinal metaplasia, dysplasia and glandular atrophy[3]. Many epidemiologic studies have found an association between intestinal metaplasia and development of gastric carcinoma. However, there is no direct evidence that shows intestinal metaplasia is a precursor lesion of gastric carcinoma, to date. Excessive straining, feeling of incomplete evacuation, repeated toilet visits due to urgent evacuation or early filling sensation, flatulence, periods of diarrhea and constipation, frequency, urgency, reduced feeling of well being and disturbed social life caused by bowel and bladder symptoms are often reported by IBS patients. We have tried to understand whether or not there are statistically significant relationships between CG, IBS and depression (D), here.

Corresponding Address: Mehmet Rami Helvaci, Hospital of the Dumlupinar University, The central campus, 43100, Kutahya, Turkey E-mail:mramihelvaci@hotmail.com
MATERIALS AND METHODS

We have randomly taken 187 consecutive patients with upper abdominal discomfort. In all cases we have performed a questionnaire for IBS, an upper gastrointestinal endoscopy including a sample biopsy and duodenal fluid aspiration, a whole abdominal ultrasonography, a test for lactose intolerance, a fresh fecal sample examination, routine hematologic and biochemical tests and a routine urinalysis. History of Antidepressive Drug (AD) usage, totally at least for a period of one year, has been learned. IBS has been diagnosed according to Rome II criteria. Student T test has been used as the method of statistical analysis.

RESULTS AND DISCUSSIONS

We have diagnosed 95 patients with CG and 92 without CG via endoscopic sample biopsy. The mean ages of patients with and without CG have been found as 38 and 40 years, respectively. Fifty-four cases of IBS have been detected in 95 cases of CG (56.84%), whereas only twentyone patients without CG (22.82%), so there is a statistically significant relationship between CG and IBS (p<0.001). Again prevalence of AD usage history has been 40.27% in CG patients, whereas 25.67% in patients without CG (p<0.01) (Table 1). On the other hand, mean age of 75 cases with IBS has been 40 years and the mean age of 112 patients without IBS has been 38 years. Prevalences of CG and AD usage history have been found as 72.00 and 43.54% in patients with IBS, whereas these rates have been 36.60 and 25.00%, respectively, in patients without IBS (p<0.001 and <0.01) (Table 2). This time we have taken patients with and without AD usage and we have detected prevalences of CG and IBS as 64.58 and 56.25% in patients with AD usage whereas 43.87 and 35.71%, respectively, in patients without it (p<0.01 for both) (Table 3). Beside CG and IBS, we have detected duodenal and gastric ulcer, erosive duodenitis, gastroesophageal reflux disease, Barrett’s esophagus, lactose intolerance, gallstone disease, giardiasis and erosive gastritis with various percentages as the cause of upper abdominal discomfort, but not malignancy, chronic pancreatitis and celiac disease, probably due to the limited number of our cases.

CG and IBS are believed to be found nearly in 50% of adults and they are frequently seen clinical conditions by physicians. Gastric acid is probably not involved in the etiology of CG. Clearly, diet and some medications may cause predisposition to CG, DU, GU, constipation, colorectal cancers and diverticular disease; however, a meaningful dietary role in IBS is doubtful. Some dietary habits may be the triggering factor for CG but this relationship does not always seen even in the same patients. Although Helicobacter pylori (H pylori) has been linked to CG, peptic ulcer disease, gastric carcinoma and mucosa-associated lymphoid tissue (MALT)-lymphoma[3] and it is recognised as a class 1 gastric carcinogen[6], it infects over 50% of the world’s population and only a small subset of infected people experience H pylori-associated disorders. Possible symbiotic relationships have been thought. The debate has been further intensified as some studies have posed the possibility that H pylori infection may be beneficial in some humans. This hypothesis is based on increased incidence of gastroesophageal reflux disease, Barrett’s esophagus and adenocarcinoma of esophagus following H pylori eradication in some countries. Recent studies have shown that H pylori infection protects against gastroesophageal reflux and esophageal carcinoma. A current working hypothesis may be that among the ocean of molecular host and pathogen interactions that could potentially occur with microevolution of this bacterium during long term colonization, some could prove advantageous where the bacterium and the host negotiate nearly a symbiotic and balanced relationship. The colonization may either be beneficial or of low biological cost to the host. So the role of H pylori in CG is obvious but the answer of this question ‘why every patient with CG does not need to come to doctor?’ is unknown.

On the other hand, the thresholds for initial filling sensation, evacuation sensation, urgent evacuation sensation and utmost tolerance sensation recorded by
means of a rectal balloon have significantly decreased by focusing the examiners' attention on gastrointestinal stimuli by reading pictures of malignant gastrointestinal diseases (P < 0.05 for all) in cases with IBS. However, no remarkable change in these thresholds has been observed in the nonpatient group, detected in a current study[6]. So selective attention of gastrointestinal symptoms is the cognitive-behavioral characteristic of patients with IBS. Diverting the examiners' attention may decrease their response to stimuli. Psychological hint (f.e., talking about cancer) exerts significant influence on the rectal pain sensitivity of IBS patients[6]. So psychological factors may be crucial for the development of IBS.

As a conclusions, there are statistically significant relationships between CG, IBS and D. Keeping in mind these associations will be useful during treatment and follow up of these patients for physicians.

REFERENCES