

**TÜRKÇE BAŞLIK**  
**UZUN BAŞLIK**

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**ÖZET**

Ortalama insanların üçtebiri, sıklıkla dispepsi olarak tanımlanan, tekrarlayan üst karın rahatsızlıklarından yakınmaktadır ki bu durum birinci basamak sağlık merkezleri ve dahiliye polikliniklerine yapılan hasta başvurularının çoğunun sebebidir. Hernekadar birçok patoloji dispepsinin altta yatan sebebi olabilirse de, çoğu zaman sebep olarak karşımıza kronik gastrit (KG) ve irritabl barsak sendromu (IBS) çıkmaktadır. KG ve IBS gelişiminde psikolojik faktörlerin yeri önemli görünmektedir. Üst karın rahatsızlığı nedeniyle başvuran 187 ardışık hasta çalışmaya alındı. Endoskopik görüntülemeler yapıldı ve parça biyopsileri gereken vakalardan alındı. En az bir yıl süreyle antidepressan ilaç (Aİ) kullanım hikayesi öğrenildi. IBS tanısı Roma II kriterlerine göre konuldu. Sonuçların karşılaştırılmasında student T testi kullanıldı. KG hastalarında IBS ve Aİ kullanım prevalansları sırasıyla % 56.84 ve 40.27 olarak tespit edilirken bu oranlar KG'e sahip olmayan hastalarda sırasıyla % 22.82 ve 25.67 olarak bulundu ( $p<0.001$  ve  $<0.05$ ). Benzer şekilde IBS hastalarında KG ve Aİ kullanımı prevalansları sırasıyla % 72.00 ve 43.54 olarak bulunurken IBS'si olmayanlarda sırasıyla % 36.60 ve 25.00 olarak tespit edildi ( $p<0.001$  ve  $<0.01$ ). Yine en az bir yıl süreyle Aİ kullanma hikayesine sahip hastalarda KG ve IBS prevalansları sırasıyla % 64.58 ve 56.25 iken, kullanmamışlarda bu oranlar % 43.87 ve 35.71'idi ( $p<0.05$ , herikisi için). Sonuç olarak, KG, IBS ve depresyon arasında istatistiksel olarak anlamlı ilişkiler mevcuttur. Bu birlikteliklerin akılda tutulması, bu hastalıkların takip ve tedavisinde doktorlar için faydalı olacaktır.

**Anahtar kelimeler:** *Kronik gastrit, İrritabl barsak sendromu, Depresyon*

**SIGNIFICANT ASSOCIATIONS BETWEEN CHRONIC  
GASTRITIS, IRRITABLE  
BOWEL SYNDROME AND DEPRESSION****ABSTRACT**

About one third of people report recurrent upper abdominal symptoms, mostly defined as dyspepsia and most of applications to primary health centers and internal medicine polyclinics are due to this reason. Although several pathologies may be underlying cause of

dyspepsia, most of the time chronic gastritis (CG) and irritable bowel syndrome (IBS) come in front of us. Psychological factors seem to be crucial for development of both. We have 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 to compare results. Prevalences of IBS and AD usage have been found as 56.84 and 40.27 % in patients with CG, whereas 22.82 and 25.67 % in patients without it ( $p < 0.001$  and  $< 0.01$ ), respectively. Similarly, prevalences of CG and AD usage have been detected as 72.00 and 43.54 % in IBS cases, whereas 36.60 and 25.00 % in cases without it ( $p < 0.001$  and  $< 0.01$ ), respectively. Again, prevalences of CG and IBS have been found as 64.58 and 56.25 % in patients with AD usage history, whereas 43.87 and 35.71 % in patients without it ( $p < 0.01$  in both), respectively. As a conclusion, there are statistically significant relationships between CG, IBS, and depression. Keeping in mind these associations will be helpful during treatment and follow up of these disorders for physicians.

**Key words:** *Chronic gastritis, Irritable bowel syndrome, Depression*

## 1. INTRODUCTION

When specifically asked, about one third of people report recurrent abdominal discomfort. Their complaints are commonly termed 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 primary health centers, general internal medicine and gastroenterology polyclinics 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. 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 (2). 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. On the other hand, 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. Psychological factors

seem to be crucial for the development of CG and IBS. We have tried to understand whether or not there are statistically significant relationships between CG, IBS, and depression (D), here.

## 2. PATIENTS AND METHODS

We have taken 187 consecutive patients with upper abdominal discomfort from general internal medicine polyclinic. 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, at least totally 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.

## 3. RESULTS

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. Fiftyfour cases of IBS have been detected in 95 cases of CG (56.84 %), whereas only twentyone patients in 92 patients without CG (22.82 %), so there has been 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: Comparison of cases with and without chronic gastritis

	Number and sexual distribution (F/M)	Mean age and standard deviation	†IBS (%)	History of ‡AD usage (%)
*CG (+)	95 (49/46)	38.83 ± 16.18	56.84	40.27
CG (-)	92 (47/45)	40.00 ± 14.91	22.82	25.67
p value			<0.001	<0.01

\*Chronic gastritis †Irritable bowel syndrome ‡Antidepressive drug

On the other hand, mean age of 75 cases with IBS has been found as 40 years and the mean age of 112 patients without IBS as 38 years. Prevalences of CG and AD usage history have been detected as 72.00 and 43.54 % in 75 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: Comparison of cases with and without irritable bowel syndrome

	Number and sexual distribution (F/M)	Mean age and standard deviation	†CG (%)	History of ‡AD usage (%)
*IBS (+)	75 (42/33)	40.69 ± 14.60	72.00	43.54
IBS (-)	112 (54/58)	38.54 ± 16.14	36.60	25.00
p value			<0.001	<0.01

\*Irritable bowel syndrome †Chronic gastritis ‡Antidepressive drug

This time we have taken the patients with and without AD usage history 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 in both).

Table 3: Comparison of patients with and without history of antidepressive drug usage

	Number and sexual distribution (F/M)	Mean age and standard deviation	†CG (%)	‡IBS (%)
History of *AD usage (+)	48 (35/13)	39.02 ± 14.31	64.58	56.25
History of AD usage (-)	98 (41/57)	37.97 ± 15.13	43.87	35.71
p value			<0.01	<0.01

\*Antidepressive drug †Chronic gastritis ‡Irritable bowel syndrome

Beside CG and IBS, we have detected duodenal and gastric ulcers, erosive duodenitis, gastroesophageal reflux disease, Barrett's esophagus, lactose intolerance, gallstone disease, giardiasis, and erosive gastritis with various percentages as the causes of upper abdominal discomfort, but not malignancy, chronic pancreatitis, and celiac disease, probably due to the limited number of our cases.

#### 4. DISCUSSION

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 (4), it infects over 50% of the worlds' 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 IBS cases. However, no remarkable change in these thresholds has been observed in the nonpatient group, detected in a current study (5). 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 (5). 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.

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