

Prevention and Treatment of Gastrointestinal Diseases in College Students

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Abstract: *Objective:* This paper aims to discuss the prevention and treatment strategies of gastrointestinal diseases in college students. *Methods:* A sample of 60 college students suffering from gastrointestinal diseases, from August 2021 to August 2022, was used to discuss the symptoms, causes, prevention strategies, and treatment strategies of gastrointestinal diseases based on questionnaire survey. *Results:* The high-incidence types of gastrointestinal diseases in college students mainly included chronic gastritis, acute gastritis, duodenal ulcer, and dyspepsia, which were closely related to mental state, diet, and living habits. *Conclusion:* There are many causes of gastrointestinal diseases in college students. During the period of active symptomatic treatment, it is necessary to focus on the prevention of gastrointestinal diseases in colleges and universities, correct the unhealthy lifestyle of students, and reduce the risk of gastrointestinal diseases.

Keywords: Gastrointestinal diseases; College students; Prevention and treatment plan

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1. Introduction

The risks of gastrointestinal diseases in college campuses are high, which increases its risk among students, with a greater impact on the physical and mental health of college students during their studies. Therefore, college teachers and clinicians should emphasize the prevention and treatment of gastrointestinal diseases in college students work^[1]. In addition, colleges and universities should also organize health education, improve the quality of on-campus medical services, and enhance students' the physical fitness to reduce the risk of gastrointestinal diseases. In this paper, a sample of 60 college students suffering from gastrointestinal diseases, from August 2021 to August 2022, is used to discuss the prevention and treatment strategies of gastrointestinal diseases in colleges and universities.

2. Materials and methods

2.1. General information

60 college students with gastrointestinal diseases were used as samples, selected from August 2021 to August

2022. The ratio of male to female was 31:29, the age range was 19–26 years old, and the mean was 23.11 ± 2.74 years old.

2.2. Methods

The types of gastrointestinal diseases among college students were counted, and the psychological state, eating habits, living habits, and post-morbid symptoms of college students were collected by using questionnaires.

2.3. Statistical analysis

The data of college students were all processed with SPSS21.0, percentage (%), mean \pm standard deviation (SD) recorded the counts and measurement indicators of college students, χ^2 , t test. There is a statistical difference if $P < 0.05$.

3. Results

3.1. Analysis of the incidence of gastrointestinal diseases in college students

The high incidence types of gastrointestinal diseases among college students mainly include chronic gastritis, acute gastritis, duodenal ulcer, and dyspepsia, accounting for 48.33%, 13.33%, 15.00%, and 23.33%, respectively. The results are shown in **Table 1**.

Table 1. Analysis of the incidence of gastrointestinal diseases in college students [n (%)]

Number of people	Chronic gastritis	Acute gastritis	Duodenal ulcer	Dyspepsia
60	29 (48.33)	8 (13.33)	9 (15.00)	14 (23.33)

3.2. Analysis of influencing factors of gastrointestinal diseases among college students

The causes of gastrointestinal diseases in college students are mainly related to mental state (related to fatigue, exam tension, mood swings, etc.), diet (related to eating too fast, irregular meals, picky eating, overeating, excessive exercise during meals, etc.), and living habits (related to drug abuse, irregular work and rest, etc.), accounting for 53.33%, 33.33%, and 13.33%, respectively. The results are presented in **Table 2**.

Table 2. Analysis of causes of gastrointestinal diseases among college students [n (%)]

Number of people	Mental factors	Dietary factors	Lifestyle factors
60	32 (53.33)	20 (33.33)	8 (13.33)

4. Discussion

There are many types of gastrointestinal diseases, but the main types of gastrointestinal diseases among college students are chronic gastritis, acute gastritis, duodenal ulcer, and dyspepsia, which are related to many factors such as mental state, diet, and living habits. Therefore, colleges and universities should pay attention to the prevention of gastrointestinal diseases among students, popularize the knowledge of gastrointestinal diseases, increase students' health awareness, and correct students' bad habits, so as to reduce the risk of gastrointestinal diseases among college students.

4.1. Symptoms of gastrointestinal diseases among college students

The typical symptoms of college students with gastrointestinal diseases are as follows:

- (1) Loss of appetite: the loss of appetite is related to abnormal intestinal digestion, intestinal motility, and intestinal absorption. In addition, it is also related to daily medication, organ damage, and poor mental state.
- (2) Nausea and vomiting: it is related to impaired gastrointestinal motility or intestinal obstruction, but it should be noted that many clinical diseases can induce nausea and vomiting symptoms, and attention should be paid to the identification of the diseases.
- (3) Abdominal pain: pain under the xiphoid process is common in duodenal disease. Middle and lower abdominal pain is common in intestinal disease. Acute pain is common in intestinal perforation or intestinal obstruction. Persistent abdominal pain is common in intestinal chronic inflammatory disease or tumor lesion.
- (4) Diarrhea: intestinal infection with toxins and bacteria can cause damage to the intestinal mucosa and induce acute diarrhea. Chronic intestinal inflammatory lesions, excessive movement, and dysfunction can induce chronic diarrhea. In addition, when small intestinal lesions induce chronic diarrhea, patients often have gastrointestinal malabsorption.
- (5) Constipation: intestinal inflammation, intestinal tumors, impaired intestinal motility, and other factors can cause constipation in patients. In addition, factors such as changes in the living habits, refined diet, and drug abuse can also induce constipation, which shows the typical symptoms of constipation complicated by organic diseases.
- (6) Melena or blood in stool: it may be related to hemorrhoids or malignant tumors. If the above symptoms appear, it is necessary to determine whether it is an organic lesion.
- (7) Others: college students with gastrointestinal diseases may have symptoms such as changes in stool shape, changes in defecation habits, and abdominal distension.

4.2. Causes of gastrointestinal diseases among college students

Summarizing the influencing factors of gastrointestinal diseases in college students, the main factors are as follows:

- (1) Mental factors: most college students are the only child and have been well taken care of by their parents since childhood. After entering colleges and universities, they may face the unfamiliar environment of the college independently, which may lead to low self-esteem, loneliness, and empty feelings, and even develop into psychological disorders, anxiety, and depression. The number of students who are taking postgraduate entrance examinations has gradually increased, thus resulting in increased pressure on students to take exams. Based on the analysis of the questionnaire survey results in this paper, the number of medical consultations for college students before exams and before employment has increased dramatically, which is related to studying all night, worrying about exam results, and high employment pressure. Under the influence of mood swings, college students secrete excessive gastric acid, which in turn induces gastrointestinal lesions.
- (2) Dietary factors: most college students have problems such as eating too fast, eating irregularly, picky eating, overeating, and excessive exercise during meals. In addition, college students have a lot of spare time, and colleges and universities have looser management of student life, which has caused some students to indulge in online games excessively, resulting in irregular meals and insufficient sleep time, which in turn increase the risk of gastrointestinal diseases. Some students even use the “inedia” method to lose weight, which will damage the gastrointestinal function and induce gastrointestinal diseases.

- (3) Living habits factors: unhealthy living habits such as drug abuse, irregular work and rest, etc. can also affect students' gastrointestinal health ^[2].

4.3. Prevention strategies for gastrointestinal diseases among college students

According to the analysis of the causes of gastrointestinal diseases in college students, gastrointestinal diseases can be prevented from the following aspects:

- (1) Propaganda and education: colleges and universities should help students to understand the impact of gastrointestinal diseases on physical and mental health, and carry out psychology elective courses on the basis of professional courses. At the same time, colleges and universities should also organize health lectures, cooperate with university doctors and authoritative medical institutions, guide college students' work and rest, exercise, diet, etc., urge college students to protect their gastrointestinal tract, and correct college students' unhealthy living habits.
- (2) Urging students to strengthen exercise: college students are urged to do aerobic exercise for 20 minutes a day by running or morning exercises to activate gastrointestinal vitality and peristaltic power. College students can also be encouraged to spontaneously carry out walking, jogging, stretching, and other exercises.
- (3) Urging students to eat healthy: the school cafeteria should follow the "low-salt" principle to prepare food, and it is recommended that those with peptic ulcers eat more pasta and avoid tea, coffee, and other foods to reduce gastric acid secretion. In addition, college students should also pay attention to the following items during their daily eating: avoid spicy food to reduce gastric mucosal damage, and reduce the body's secretion of pepsin and gastric acid; avoid over-acidic food to reduce the damage of acidic food to gastric mucosa; increase fiber-promoting diet proportion to reduce gastric dilation time and inhibit gastric acid secretion; chew and eat slowly, as saliva secretion increases during chewing, which can neutralize gastric acid and reduce damage to gastrointestinal tract; avoid overeating, otherwise the gastric antrum will continue to expand, which can stimulate the body to secrete gastrin and damage gastrointestinal health; avoid eating before going to bed to reduce the amount of gastric acid secretion at night ^[3].
- (4) Organizing regular physical examinations for college students: colleges and universities can organize regular physical examinations for students to detect gastrointestinal diseases as early as possible and treat them promptly, so as to reduce the impact of gastrointestinal diseases on students' physical and mental health.
- (5) Providing psychological counseling services for college students: The primary influencing factors of gastrointestinal diseases in colleges and universities are psychological and mental state, thus attention should be paid to the mental health of college students. First of all, all colleges and universities should promote quality education, pay attention to the comprehensive and individual development of students, optimize the evaluation criteria of test scores, carry out all-round assessment, and focus on evaluating the comprehensive quality of college students. Secondly, colleges and universities should focus on the cultivation of students' professional skills, so that students can successfully enter the workplace after completing their studies, and then ease the students' worries about future employment. Additionally, all colleges and universities should set up psychological counseling departments, and at the same time assign psychologists and psychological teachers to provide professional psychological counseling for college students, in order to relieve depression and tension ^[4].
- (6) Strengthening the management of college dormitories: colleges and universities should perform well

in dormitory sleep management, strictly implement the college sleep regulations, open and close the dormitory doors regularly, and conduct midday and night ward rounds, and urge students to rest on time. In addition, we must also pay attention to the management of school canteens, and urge the canteens to provide students with nutritious and varied food. Plus, we must also focus on students' daily physical examinations, strengthen students' dietary guidance and education to reduce the risk and adverse effects of gastrointestinal diseases ^[5].

4.4. Treatment strategies for gastrointestinal diseases among college students

College students with gastrointestinal diseases should choose drugs based on their symptoms and conditions, and administer drugs based on the principle of "symptomatic treatment." The specific treatment strategies are as follows:

- (1) Drug treatment: chronic gastritis are related to *Helicobacter pylori* infection. Therefore, radical treatment of *Helicobacter pylori* infection should be carried out, and antibiotics and proton pump inhibitors, such as amoxicillin, can be selected for treatment. If patients with chronic gastritis complicated with pain, propensine can be used in combination. However, it should be noted that different drugs are taken at different times. If antacids are chosen to treat chronic gastritis, it is recommended to take them 30 minutes before meals or 2 hours after meals ^[6]. For acute gastritis, patients need to adjust the diet after the occurrence of symptoms, try to eat light and digestible food. If patients with acute gastritis have symptoms of melena and hematemesis, hemostasis and rehydration treatment are required immediately, and fasting for 8–12 hours, and H₂ receptor antagonists can be infused intravenously. If abdominal cramps occur, anisodine can be taken. If patients with acute gastritis have no melena and hematemesis within 24 hours of treatment, they can eat a small amount of food. Moreover, the typical symptoms of functional dyspepsia are abdominal distension and acid reflux, etc., and the symptoms last for a long time. B-ultrasound and gastroscopy are required to identify whether it is an organic lesion. After the diagnosis of functional dyspepsia, drugs such as bismuth pectin and morphine can be given, and psychological counseling can be carried out at the same time. Encouraging words can be used to guide high-efficiency students' worries and anxiety, and improve patients' confidence and enthusiasm for treatment. Additionally, most of the treatment drugs for duodenal ulcer are proton pump inhibitors, commonly used drug types are lansoprazole, omeprazole, etc., it can also be combined with rehabilitation new liquid and other mucosal protective drugs to promote the recovery of ulcer. In addition, patients with duodenal ulcers often have the problem of *Helicobacter pylori* infection, especially those with bulbar ulcers, and *Helicobacter pylori* infection needs to be monitored. If *Helicobacter pylori* infection is positive, anti-*Helicobacter pylori* treatment should be actively carried out, such as quadruple therapy ^[7]. Some college students with duodenal ulcers may experience symptoms of gastrointestinal bleeding, which require immediate intravenous rehydration, fasting and water treatment, and hospitalization if necessary.
- (2) Diet therapy: College students should have sufficient calorie intake. Some college students have the misunderstanding that they should reduce their food intake after diarrhea, which can prolong the recovery time of gastrointestinal diseases. Generally, the body consumption increases after the patient has diarrhea, so they should increase the daily calorie intake, preferably liquid or semi-liquid food to reduce the burden on the stomach and intestines. Moreover, college students should regulate their protein intake. Acute enteritis can promote the gastrointestinal bacterial spoilage, thus the daily protein intake should be regulated, otherwise, excessive protein intake will further promote the

bacterial spoilage effect. However, it should be noted that patient with acute enteritis can eat yogurt, eggs, fish, and other high-quality protein-rich foods, and increase the vegetable intake. When the gastrointestinal condition is stable, the patient can increase the protein intake. Additionally, college students should ensure sufficient carbohydrate intake. It is advisable for patients with gastrointestinal diseases to consume 60–65% of their total energy daily. It is recommended to choose rice, porridge, and noodles, and appropriately increase the cooking time to promote gastrointestinal absorption and reduce the burden on the gastrointestinal tract. Plus, college students should also control their daily fat intake. College students with gastrointestinal lesions should try to avoid fatty meat and fried food, and eat more soy products, fruits, and vegetables. College students also need to control their daily dietary fiber intake. Intake of foods rich in crude fiber should be reduced, and patients are advised to eat raw apple puree in moderation, which is rich in pectin with antidiarrheal effect. College students should ensure that they have adequate intake of minerals and vitamins. College students are advised to stay hydrated, such as drinking more fruit juices, rice soup, etc., and at the same time make soups from fruits and vegetables to promote the body's absorption [8]. In addition, some college students have impaired gastrointestinal digestion and absorption after acute enteritis. It is recommended to eat more stewed and steamed foods, and eat according to the principle of eating small and frequent meals. Based on the data analysis in this paper, the high-incidence types of gastrointestinal diseases among college students mainly include chronic gastritis, acute gastritis, duodenal ulcer, and dyspepsia, which are closely related to mental state, diet, and living habits. It is suggested that colleges and universities should discuss disease prevention strategies and treatment strategies in light of students' specific disease conditions to ensure students' physical and mental health.

5. Conclusion

To sum up, there are many types of gastrointestinal diseases among college students, which are closely related to mental state, diet, and living habits. Therefore, colleges and universities should focus on the prevention and treatment of gastrointestinal diseases, urge students to develop good habits, and reduce the adverse effects of gastrointestinal diseases as much as possible.

Disclosure statement

The author declares no conflict of interest.

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