

Microscopic Observation of Omeprazole Sensitivity Technology in the Diagnosis and Nursing of Chronic Obstructive Pulmonary Disease with Gastroesophageal Reflux Disease

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Abstract: At present, the problem of food safety has led to a variety of stomach diseases in some people, and antibiotics are mainly used in the treatment. In the clinical treatment, the treatment effect is reduced due to the excessive acidity of gastric acid. In this paper, under the microscope to observe the sensitivity of omeprazole technology, the diagnosis of chronic obstructive pulmonary disease with gastroesophageal reflux disease was proposed, and the importance of nursing intervention was emphasized. This paper first describes the use of ultrasound-guided microscopic observation technology and clinical deficiencies. Then use the microscope to observe omeprazole sensitivity technology to observe the pathological section of patients, compare the results of diagnosis and gastroscopy, and evaluate the clinical effect of nursing intervention in patients. **Methods:** 26 patients with suspected chronic obstructive pulmonary disease (COPD) and gastroesophageal reflux disease (GERD) in our hospital were selected as the research objects. After the initial diagnosis, treatment measures were taken and nursing intervention was carried out. The results showed that 1 case, 4 cases, 8 cases and 13 cases of unsatisfied, benign, suspicious and malignant cases were diagnosed by endoscopic ultrasound-guided microscopic observation under nursing intervention, and the overall consistency with the final cytological diagnosis was 85%. Therefore, endoscopic ultrasound-guided microscopic observation in the application of gastric lesions is effective and accurate, and can replace the conventional microscopic diagnosis law.

Keywords: Ultrasound Guided Microscope Observation, Omeprazole Sensitivity, Chronic Obstructive Pulmonary Disease with Gastroesophageal Reflux Disease, Nursing Intervention

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In recent years, there are more and more patients with stomach diseases. Affected by diet and environment, there are many kinds of stomach diseases in the society. When it is serious, the risk of gastric cancer is very high. Therefore, more and more research on the diagnosis and treatment of diseases turns to stomach diseases. At present, in chronic obstructive pulmonary disease with gastroesophageal reflux disease is mainly guided by gastroscopy diagnosis, but in fact, the diagnostic accuracy rate is not high, so the academia turned to ultrasound-guided microscope for observation and diagnosis.

In the diagnosis of chronic obstructive pulmonary disease (COPD) with gastroesophageal reflux disease (GERD), giraldi l conducted a comparative study on the non-diagnostic rate of eus-fnab and eus-fnab for COPD with GERD. It was found that the non-diagnostic rate of eus-fnab for solid pancreatic lesions was 3.7%, while that of eus-fnab was 3.7% There was no significant difference in the non-diagnostic rate of pancreatic cystic lesions between the two groups ¹. Wang Z proposed that endoscopic ultrasound-guided microscopic observation can reduce the non-diagnostic rate of eus-fnab COPD with

gastroesophageal reflux disease, and can be used as an effective alternative method for on-site evaluation of cytopathology². Caselli m has carried out a feasibility study on the observation of solid pancreatic lesions under the microscope guided by endoscopic ultrasonography assisted by smart phones. In this study, cytological technicians smeared on site and transmitted images to distant pathologists for diagnosis through the smart phones installed on the microscope³.

In terms of drug use, papaefthymiu a conducted a comparative study on the sensitivity of omeprazole and the dissatisfaction rate of off-site evaluation in the diagnosis of chronic obstructive pulmonary disease (COPD) with gastroesophageal reflux disease (GERD) nodules, and estimated that the incidence of gastritis canceration was 0 ~ 1.56%⁴. Bernegger s analysis found that HP infection rate was positively correlated with age, and there was no significant gender difference⁵. SEO ki found that there were regional differences in HP infection, and he had significant social high infection characteristics. Therefore, it is of great significance to study the pathogenic mechanism of HP for human beings to master its prevention, detection and treatment methods⁶. Eslami m study found that interleukin-1 β (IL-1 β) has a strong inhibition of H + secretion function, IL-1 β level is negatively correlated with gastric pH value, inflammatory factors released after Hp infection can affect gastric acid secretion, and then affect the development of gastritis⁷. The balance between proliferation and apoptosis of gastric epithelial cells is related to the occurrence and development of gastritis after Hp infection. Kumar s believes that in simple gastritis, proliferation and apoptosis are in balance. If the proliferation is too fast, the possibility of canceration is higher. If atrophy occurs, the level of apoptosis rises⁸. The above studies have done a lot of research in the accompanied disease gastritis, but rarely involved in the detection of living microscope. The accuracy of traditional methods is usually low, and resulting in patients cannot get effective treatment, resulting in more serious stomach disease.

This paper studies the application of microscope observa

tion omeprazole sensitivity technology in the diagnosis and nursing of chronic obstructive pulmonary disease (COPD) with gastroesophageal reflux disease (GERD). Firstly, it describes the use of ultrasound-guided microscope observation technology and its clinical shortcomings, and then uses microscope observation omeprazole sensitivity technology to observe and study the pathological sections of patients, and combines the diagnosis results with gastroscopy results to compare and evaluate the clinical effect of nursing intervention in patients.

MICROSCOPIC OBSERVATION OF OMEPRAZOLE SENSITIVITY TECHNOLOGY

Ultrasound Guided Microscopic Observation

Endoscopic ultrasound guided microscopic biopsy is considered to be a safe and effective diagnostic technique for chronic obstructive pulmonary disease (COPD) with gastroesophageal reflux disease (GERD). It has been reported that rose can improve the diagnostic rate and sample adequacy of FNAB or eus-fnab, and shorten the operation time. According to the existing research reports, endoscopic ultrasound-guided microscopic observation can obtain the results similar to the final pathological diagnosis, and can also obtain the diagnosis rate and sample adequacy consistent with the conventional rapid on-site evaluation (c-rose)⁹. This model is widely used in pathology teaching¹⁰.

Remote control automatic microscope diagnosis mode, also known as dynamic real-time microscope diagnosis mode, can achieve real-time adjustment of tissue section image position and magnification, so as to obtain complete specimen information for diagnosis¹¹. With the development of modern science and technology, especially the Internet, this mode appears and improves¹². In the past two years, due to the diversification of the functions of smart phones, there has been a TCP diagnosis mode assisted by smart phones, that is, smart phones are installed on traditional microscopes, images are taken with smart phones, and remote pathologists read the images on their own mobile phones to get the diagnosis¹³.

With the extensive development of early

diagnosis and treatment, clear diagnosis has become the most important link in the diagnosis and treatment of head and neck diseases, especially chronic obstructive pulmonary disease with gastroesophageal reflux disease¹⁴. FNAB is a simple and rapid diagnostic method for cervical masses, which has been widely used in the diagnosis of masses in chronic obstructive pulmonary disease (COPD) with gastroesophageal reflux disease (GERD). Rose is also considered to be an effective technology to improve the diagnostic accuracy of lesions in COPD with gastroesophageal reflux disease (GERD) and provide sufficient diagnostic samples¹⁵. The application of endoscopic ultrasound-guided microscope observation assisted by smart phone is to connect the traditional microscope connected with computer to the smart phone, or use the smart phone with high-quality camera function to take pictures or videos under the microscope eyepiece, and transmit them to the designated pathologist's mobile phone through the network, so as to carry out diagnosis surgery¹⁶. The pathological images of chronic obstructive pulmonary disease (COPD) with gastroesophageal reflux disease (GERD) obtained by smart phone are transmitted to the pathologist who is not on the scene in real time. The pathologist reads the film on his own mobile phone, communicates with the doctor who operates the microscope on the scene in real time by phone, adjusts the slice position, magnification, and guides re sampling, etc., and finally comes to the conclusion of diagnosis: ultrasound assisted by smart phone endoscopy guided microscopic observation is a cheap and effective FNAB diagnostic technique for chronic obstructive pulmonary disease with gastroesophageal reflux disease¹⁷. In addition to the above studies, we also reported the application of smartphone assisted endoscopic ultrasonography guided microscopic observation in oral malignant lesions, cervical cells, lymph nodes and soft tissues¹⁸. According to the existing research results, endoscopic ultrasound-guided microscopic observation assisted by smart phones is an effective and accurate cytopathological diagnosis technology, which can also be well carried out in the lack of patholo

gists and remote areas¹⁹. Endoscopic ultrasound-guided microscopic observation can not only reduce the burden of pathologists, but also solve the problem of lack of pathologists in medical institutions. However, there are still many problems in its extensive development²⁰. The first is information security. Endoscopic ultrasound-guided microscopic observation needs to transmit the basic information and histopathological images of patients through the network, which is bound to have network security problems, which may lead to the leakage of patients' information and invasion of patients' privacy. For this problem, most of the current research is to use the local area network in the hospital for transmission, which is relatively safe, but it is still to carry out ultrasound-guided microscopic observation. At present, most of the researches are carried out by professional cell technicians for staining and production, and then the images are transmitted to the pathologists in the diagnosis room, which requires more cell technicians to participate in. However, some researches have pointed out that trained endoscopists or biopsy physicians and robots assist in production and microscopic examination. The same histopathological sections and images as those obtained by cell technician can be obtained by microscope operation²¹.

Etiology of Chronic Obstructive Pulmonary Disease with Gastroesophageal Reflux

In gastric diseases, *Helicobacter pylori* is the most common *Helicobacter* associated with gastritis, and the most common non-*Helicobacter pylori* that can cause gastritis is *Helicobacter Hellman* (Hh). H h is an independent risk factor for gastritis, and it can also be co pathogenic with H P. The immune response of the host induced by the toxin released by HP is similar to that caused by HP infection. Hh can also release urease, which has the same effect as HP; when inflammation occurs, urease will combine with HOCl produced by neutrophils to form toxic products. Urease can also cause inflammation and damage the stomach wall. The typical feature of gastritis caused by Hh is that the degree of infection is lower than that of

HP infection and the symptoms are lighter. As the bacteria colonized in the stomach without adhesion, the infection of Hh could be easily eradicated and disappeared by itself.

Of course, more studies are needed to confirm this; then there is the problem of psychological changes of patients. Under non general anesthesia, patients can hear and see the surrounding situation. If they are patients with chronic obstructive pulmonary disease (COPD) and gastroesophageal reflux disease (GERD), the pathologist will inform the operator of the preliminary diagnosis results by telephone during TCP on-site communication, which will bring huge psychological burden to the patients undergoing examination. The physical and psychological problems of nursing patients also need to be considered; finally, the problem of equipment, endoscopic ultrasound-guided microscopic observation needs to install microscope and transmission equipment in or near the biopsy room, which is difficult to operate in medical institutions lacking medical equipment²².

DIAGNOSIS AND NURSING INTERVENTION

Content

This paper studies the application of microscope observation omeprazole sensitivity technology in the diagnosis and nursing of chronic obstructive pulmonary disease (COPD) with gastroesophageal reflux disease (GERD). Firstly, it describes the use of ultrasound-guided microscope observation technology and its clinical shortcomings, and then uses microscope observation omeprazole sensitivity technology to observe and study the pathological sections of patients, and combines the diagnosis results with gastroscopy results to compare and evaluate the clinical effect of nursing intervention in patients. Methods: 26 patients with suspected chronic obstructive pulmonary disease (COPD) and gastroesophageal reflux disease (GERD) in our hospital were selected as the research objects. After the initial diagnosis, treatment measures were taken and nursing intervention was carried out.

Diagnosis and Intervention

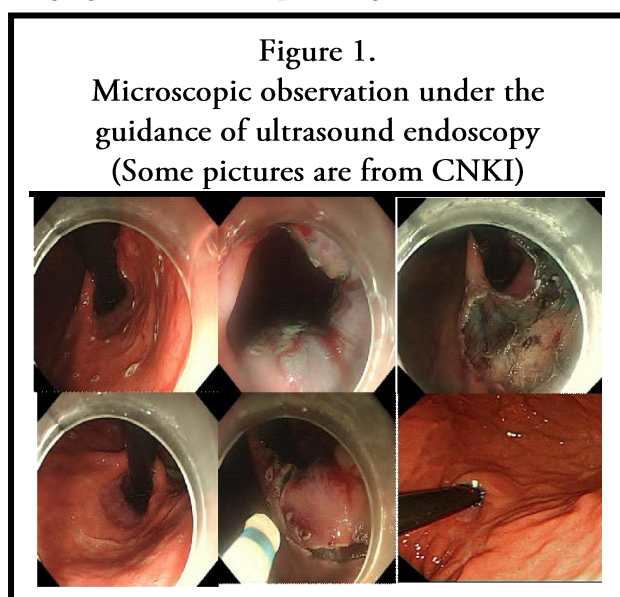
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ng patients as the center, relying on the community doctor team and taking the community as the base, according to the previous research on COPD, scientific researchers use the medical resources of the community health center to carry out multi-disciplinary cooperation and three-dimensional management intervention. The specific intervention methods include issuing health education materials, exercise prescriptions and nutrition prescriptions related to COPD, organizing patients to carry out health education and learning, and teaching abdominal breathing methods. The subjects in the intervention group were required to receive 6 times of health education within 6 months. For each intervention activity, famous experts in nutrition, sleep science and kinematics from various hospitals were invited. According to the needs of COPD patients, group teaching was organized, COPD related knowledge and common sense of life were popularized, and simple tests were conducted after class. The specific intervention of individual health education was guided by full-time researchers to educate the family members of patients, and encourage patients to participate in rehabilitation exercise; the intervention method of exercise training was to recommend patients to walk to the ground every day, once in the morning and once in the afternoon, half an hour each time. The patient is required to accelerate the walking speed as much as possible under the condition of stable breathing. Community doctors and assistants communicate with patients and their families daily to understand the causes of anxiety and depression of patients, and to persuade and enlighten them, so as to eliminate pessimism and enhance rehabilitation confidence. The control group received routine health education once every 6 months. Each part has 7 items, each item covers 4 options and their corresponding scores ("almost asymptomatic" is 0, and "significant symptom" is 3). The scores of each part range from 0 to 21. Hads have been widely used in clinical and non-clinical fields because of its good reliability and validity at home and abroad. Before the intervention of quality control, an expert demonstration meeting was held to fully discuss

and determine the perfect intervention scheme, and the research group was responsible for the training of investigators. In addition, the main members of the research group conducted on-site review of the questionnaire. It is speculated that the high proportion of gastritis patients with reflux disease reported in this study is related to the inclusion of patients with non-erosive gastroesophageal reflux disease, which further suggests that gastritis is closely related to GERD. In another study on the relationship between hgmue and gastroesophageal reflux disease, we found that HER2 / neu was expressed in ectopic gastric mucosa of some gastritis patients with laryngopharyngeal reflux.

DIAGNOSIS AND NURSING OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE WITH GASTROESOPHAGEAL REFLUX DISEASE

Endoscopic ultrasound-guided microscopic observation is widely used in other diseases, such as pancreas, chronic obstructive pulmonary disease with gastroesophageal reflux disease and mediastinal lymph node biopsy. In this paper, 26 cases of endoscopic ultrasound-guided microscopy were used to observe the percutaneous image-guided endoscopic images of the stomach.



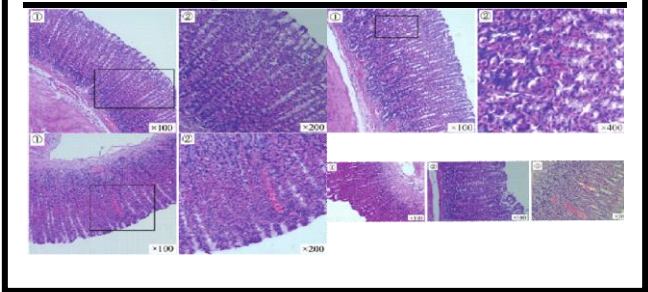
As shown in Figure 1, the sample adequacy rate of endoscopic ultrasound-guided microscopy was 70.3%, and the coincidence rate with the final pathological diagnosis was 85.5%. It is considered that the sensitivity technique of microscopic observation of omeprazole is feasible, which may increase the availability of microscopic observation.

Table 1.
Atrophic gastritis model of chronic obstructive pulmonary disease

Item	Bc1-2	ROSE	Cox-2	IL-6	IL-8	$\alpha 1$ Receptor
Cold	1.35	2.69	2.03	3.73	2.36	1.35
Spicy	5.62	3.25	4.53	4.34	2.26	5.62
Dissatisfied	3.58	1.12	3.15	1.09	5.52	3.58
Benign	2.14	1.94	4.98	2.08	1.09	2.14
Suspicious	1.46	4.22	5.12	5.09	4.28	1.46
Malignant	1.27	6.33	2	2.69	4.82	1.27

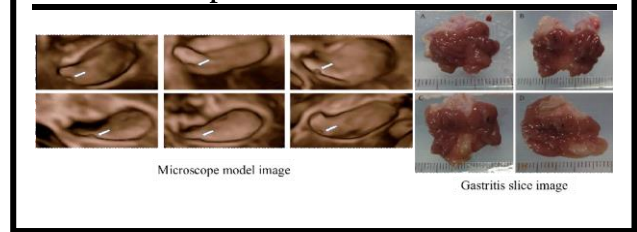
As shown in Table 1, we found that the contents of IL-6 and IL-8 were significantly increased, and the expressions of bc1-2 and COX-2 were increased in the model of chronic obstructive pulmonary disease (COPD) with atrophic gastritis by intragastric administration of hot saline. The overexpression of Bcl-2 and COX-2, which are the regulatory genes of inflammation and apoptosis mediated by IL-6 and IL-8, is one of the main mechanisms of early gastric mucosal injury induced by hot saline. Spicy food can protect gastric mucosa in small dose, but it can cause damage in large dose. Pepsin and norepinephrine, activation of $\alpha 1$ receptor and contraction of blood vessels can reduce the blood supply of gastric mucosa and damage the protective barrier of gastric mucosa. Gastric acid secretion increased in anger, tension and other high emotions, and decreased in fear, depression and other depressive emotions. Emotional stimulation can also reduce gastric motility and secretion by releasing brain gut peptide.

Figure 2.
The real picture of the stained section of
stomach disease
(Some pictures are from CNKI)



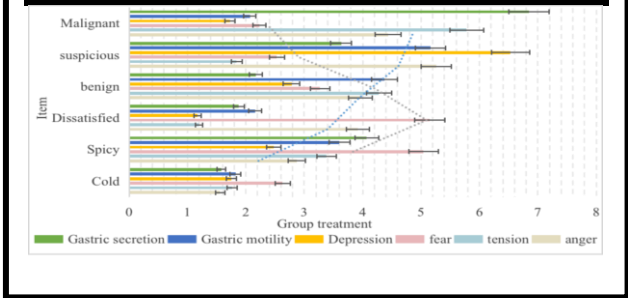
As shown in Figure 2, excessive gastric acid secretion will weaken the barrier ability of gastric mucosa. After Hp infection, it can promote the secretion of gastrin by G cells and hinder the release of somatostatin by D cells. At the same time, G cells will also be regulated by somatostatin. Once infection occurs, it will break the balance between somatostatin and gastrin and reduce the defense ability of gastric mucosa. HP infection can also affect cholecystokinin (CCK), which can inhibit the secretion of somatostatin and increase the secretion of gastrin. Many factors lead to the increase of gastrin secretion level and the weakening of pyloric sphincter contraction, which will form bile reflux gastritis. Rose can improve the diagnostic rate of lungpro navigation bronchoscopy, reduce the number of puncture, reduce the incidence of complications. Some studies do not support rose technology can improve the diagnostic rate of lung or mediastinal lesions, but the current results show that it is mainly supportive. At present, there are few studies on the application of EUS guided microscopy in lung and mediastinal lesions, but these results point out some advantages of EUS guided microscopy.

Figure 3.
Real image and microscopic image model of
stomach injury
(Some pictures are from CNKI)



As shown in Figure 3, gelatin like gastric mucus, cold, spicy, or hard foods can cause mechanical damage to the gastric mucosa. Gastric mucus will also play a protective role. Its defense function also depends on the intact gastric mucosa, which can play a very good role in preventing the gastric mucosa from spreading from the serosal membrane to the mucosa and gastric cavity and the invasion of H^+ by Na^+ . If the gastric mucosa is in the state of ischemia, it cannot carry out anaerobic metabolism to supplement its energy, the transport ability of ion pump is weakened, and the defense ability of gastric mucosa is decreased; At the same time, due to the lack of timely excretion of H^+ in the ischemic state, resulting in a large number of accumulation, the acid-base value of the internal environment decreased, the transmembrane potential of cells decreased, resulting in the damage of gastric cells, further resulting in the atrophy of gastric mucosal epithelium and glands.

Figure 4.
Microscopic observation diagnosis rate



As shown in Figure 4, there were 1 case, 4 cases, 8 cases and 13 cases of unsatisfied, benign, suspicious and malignant cases diagnosed by endoscopic ultrasonography guided microscopic observation under nursing intervention, and the overall consistency with the final cytological diagnosis was 85%. Therefore, endoscopic ultrasonography guided microscopic observation in the application of gastric lesions is effective and accurate, and can replace the conventional microscopic diagnosis law. The main pathological changes were lung, lymph nodes, stomach, chronic obstructive pulmonary disease with gastroesophageal reflux disease (79.7%), and other pathological changes including kidney and breast. The results showed that the consistency of the

initial diagnosis and final diagnosis of omeprazole sensitivity technique in FNA and core biopsies was 93.1% (7547 / 8106) Microscope observation of omeprazole sensitivity technology in the diagnosis and nursing of gastric disease effectively reduced the burden of pathologists to the operation site for rose ²³.

In the process of nursing intervention, there was no significant correlation between the type of chronic gastritis, endoscopic performance, pathological grading of gastric mucosa and the severity of symptoms. The common manifestations are epigastric pain, postprandial fullness, loss of appetite, nausea, vomiting, acid reflux, anemia, bile reflux, anxiety, depression and other psychological symptoms. Most people think that the pathogenesis of chronic gastritis is caused by many factors.

Considering that this is related to our hospital from the end of 2020 to the beginning of gastritis related research, microscopic observation of omeprazole sensitivity technology, physicians' awareness and attention to gastritis gradually improve. This is consistent with previous studies. In the retrospective study, the detection rate of gastritis is 0.18% ~ 1.60%, but in the prospective study, the detection rate can be as high as 1% ~ 14%. The difference of gastritis detection rate is closely related to the awareness and attention of omeprazole sensitive technologists to hgume, examination experience, whether to implement senseless gastroscopy and examination equipment. Patients with gastritis confirmed by pathology were included for further confirmation. To sum up, the detection rate of omeprazole sensitivity under microscope observation of gastritis is related to the awareness and attention of omeprazole sensitivity under microscope observation. Gastroesophageal reflux disease (GERD) and peptic ulcer (peptic ulcer) were common in gastritis patients with omeprazole sensitivity under microscope. The incidence of canceration of hgmue itself is low, but the proportion of patients with upper gastrointestinal tumor is high, which may be one of the early warning factors of esophageal cancer and gastric cancer. Gastritis may be one of the early warning factors of esophageal cancer and gastric cancer.

CONCLUSIONS

Through the understanding of chronic obstructive pulmonary disease (COPD) with gastroesophageal reflux disease (GERD), it is helpful for clinical workers to make comprehensive consideration and formulate various, reasonable and individualized treatment plans. Common treatments include eradication of HP, use of acid inhibitors, gastrointestinal motility drugs, bile binders, mucosal protectors, etc. This study also has some limitations. First of all, we did not have routine biopsy confirmation of gastritis. Although this study is a retrospective study, we started to carry out gastritis related research since the end of 2020, and routine pathological biopsy of gastritis was carried out in January 2021. Of the 26 biopsies obtained, 24 were ectopic gastric mucosa and 2 were esophageal squamous epithelium, which may be related to the poor location of biopsies. Therefore, the detection rate of omeprazole sensitivity technology in microscopic observation of gastritis is higher than that in pathological examination. We speculate that the patients diagnosed as gastritis by omeprazole sensitivity technology in microscopic observation in 2020 should be basically consistent with the pathological diagnosis, and the research results should be basically consistent. In recent years, the etiology and mechanism of chronic gastritis research has not yet formed a clear conclusion, still need further study.

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