The study of clinical and pathogenetic characteristics of the chronic bronchitis course on the background of the aggravating concomitant gastroesophageal reflux disease

Shevchuk-Budz UI

Abstract
Recently, the significant prevalence of the comorbid pathology and its constant increase is observed, that is caused by the ageing of people, the environmental unfavourable factors impact, urbanization, hypodynamia, irrational nutrition, the violation of the working regime and rest, that is actual problem for studying in modern medical sphere.

The cross-fertility of pathogenetic factors in the development of these diseases leads to the development and justification of rational therapeutic tactics. All this determines the relevance of this study, which is aimed at increasing the effectiveness of treatment of patients with chronic bronchitis in combination with gastroesophageal reflux disease on the basis of studying their pathogenetic links of development and substantiation of pharmacological correction of treatment.

The purpose of this study was to study the clinical pathogenetic features of the course of chronic bronchitis against the background of aggravating accompanying gastroesophageal reflux disease.

According to the results obtained, patients with HB with concomitant GERD noted 2.25 times more heartburn than patients of the comparison group, productive cough with purulent secretion was diagnosed in patients with HB with concomitant GERD in 2.28 times more often than in patients with a comparison group.

Consequently, when combined with HB and GERD, there is a mutual contraction syndrome, which leads to significant difficulties in choosing a rational diagnostic and therapeutic tactic.

Keywords: comorbid pathology, chronic bronchitis, reflux esophagitis

Introduction
Combined pathology attracts special attention, that includes one of the most common pulmonary system diseases, namely the chronic bronchitis (CB) and the pathology of gastrointestinal tract (GIT) – gastroesophageal reflux disease (GERD). The course of chronic bronchitis without concomitant pathology and at detected gastroesophageal reflux disease, the changes of laboratory indices and instrumental results which required additional methods of examination and therapeutic correction realization in comparison group and research group of patients on combined pathology were analysed by us [1, 6].

Materials and methods of research
We examined and treated 107 patients with CB and CB with GERD, among them 62 persons were men (57, 9%), 45 persons were women (42, 1%), aged from 18 to 77 years old.

The criteria for inclusion in the study were: established diagnosis CB, frequent recurrent cough, discomfort in the chest; pyrosis, that bothered occasionally, and also informed individual patient’s agreement on participate in the examination.

The exclusion criteria were: the somatic pathology in the active phase or the decompensation stage, oncological and lymphoproliferative diseases; the stomach ulcer or the duodenum ulcer; the chronic obstructive lung disease; the bronchial asthma; the chronic cor pulmonale; the metabolic syndrome; the chronic viral infection; side reactions when applying medication; intolerance proposed medicines; the absence of the patience’s agreement on participate in the examination.

All patients were examined before examination, which allowed to distinguish certain clinical symptoms in the future, which bothered them, but the patients did not correct these complaints on their own.
The main directions of the complex examination of patients with CB and concomitant GERD were:

- Anamnesis complete collection of the disease (relapse rate of CB);
- An estimation of objective examination;
- The main methods of the previous examination of the bronchial and pulmonary systems;
- The additional methods of examination;
- The correction of the treatment.

Results and Discussion

According to the World Health Organization (WHO) classification, people from 20 to 44 years old refer to young age, people from 45 to 59 – to middle age, elderly people are from 60 to 74 years old, old people are from 75 to 89, and long-lived people are in the age of 90 and older.

In connection with this classification by age structure, we detected that among patients with CB and CB with GERD young and middle age people are prevailed.

All patients are able to work in research group, and it impacts not only on medical aspect, but it underlines social significance, namely the presence of patients in the list of incapacity to work.

The age structure of patients in the first group was 50% of the young people (from 20 to 44 years), in the second group was 42, 1%, the middle age was 36% (from 45 to 59) and 40, 35% was in the appropriate groups mentioned above.

At collecting anamnesis, we established that all patients from both groups noticed that complaints on the cough and the discomfort in the chest bothered them more than 1 year, but considering low-asymptomatic course, they did not address to the doctors. At increasing symptoms and worsening patients’ state of health, they received treatment at the place of residence. And after that, they continued their treatment in outpatient conditions with subjective improvement.

The cough, the discomfort in the chest, dyspnea at increasing physical activity, pyrosis, and general weakness were the most common complaints at questioning.

At collecting anamnesis, all patients of both groups marked the cough which was observed in all patients of the 1st and the 2nd groups from the very beginning, besides that 50 patients had cough with a small amount of sputum yellow-green color. In the 2nd group, we observed productive cough with sputum in the patients, mainly mucous character, that at 185 times more often (p<0.05) compared to the 1st group of patients.

At valuing auscultative images, it was established that the vesicular respiration with the hard shade was in the 1st and the 2nd research group, however dry stertors on a forced expiration and the presence of obstructive pulmonary syndrome.

The strengthening of CB clinical shows was observed in 2 patients (4%) of the 1st compared group, and in 8 patients (14, 03%) of the 2nd research group.

Such indices, in the patients of the 2nd research group, were caused by the aggressive reproach of the gastric content into bronchial tree that was called forth by the presence of concomitant GERD.

In the course of the survey, the diagnosis GERD was established for the first time for all patients, that is why we could mention notable hypodiagnostics in finding concomitant pathology, so far as the attention was paid only to pulmonical complaints without applying enlarged diagnostic search.

Analyzing clinical shows we can mark that the course CB together with GERD was more serious than in patients of the 1st compared group, without GERD. It was manifested by increasing attacks rate unproductive and dry cough in day and night periods in 53 patients (92, 98%) of the 2nd research group and in 33 patients (66%) of the 1st group.

The correction of dry or unproductive cough attacks with the attacks of dyspnea, was corrected by patients on their own, at home by taking dose by B-agonist of short duration.

According to discovered data, the showing was 28% in the 1st group, in the 2nd group this showing was higher – 36, 84%, that, in our opinions, was directly related to the aggravating concomitant GERD.

At collecting anamnesis, it was established that the rate of CB exacerbation was 31 cases that led to the addressing of patients for medical assistance but the other patients (71, 02%) continued to take medicine on their own for facilitation of clinical symptoms.

All examined patients received repeatedly qualified medical aid at exacerbation of chronic bronchitis before the study began, but they were not examined completely from the side of other organs and systems. During the questioning, it was established that a small number of patients noticed regurgitation, especially after eating fried food 4 (3,73), 3 patients (2,8%) had complaints on the discomfort in the throat, that later, at enlarged focused diagnostic search, was diagnosed like signs of chronic pharyngitis.

Among the other shows of GERD in the patients of research group, the next symptoms and clinical shows were determined: pyrosis (31,57%), more often they suffered from the pyrosis in the night period, belching sour (35,08%), regurgitation (38,59%), dysphagia (14,03%) that was connected with the presence of expressed inflammatory changes in the mucous membrane of gullet and the possible presence of erosion, the presence of the pain behind the sternum, in 10,52% of the patients in the basic group it indicated about the presence of reflux-esophagitis, which was clinically distinguished from angina pectoris pain, because it increased in the lying position.

The submitted clinical complaints belong to the typical esophageal symptoms, which are caused by the influence of hydrochloric acid and pepsin on the mucous membrane of the gullet.

The presence of pulmonary complaints in the major part of the patients which were corrected on their own by taking B-agonist of short duration proved bout not enough treatment that was the result of not achieve remission.

Thanks to the evaluation of clinical course of CB and manifestation concomitant GERD, it allowed to correct the frequency of CB exacerbation, because without diagnostic verification the causes of dry or unproductive cough attacks exacerbation CB in the 1st group were repeated more often, with the subsequent lengthening of the duration treatment in stationary conditions, that had a social and medical problem.

The duration of periods of remission in the 2nd research group is 71, 92% within more than 4 months that is the highest showing among the patients with CB and GERD. The lowest showing is 23 patients (46%) with CB without GERD in the 2nd group.

Conclusions

Taking into account such results, we can clearly formulate the opinion about significant percent of the patients with CB, who do not conduct a proper examination and treatment, in its turn
It brings to appear increasing the frequency of exacerbation and progression of CB, in the form of the strengthening of cough and mask the course of GERD.

**References**


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