



ISSN (E): 2277- 7695
ISSN (P): 2349-8242
NAAS Rating: 5.03
TPI 2018; 7(4): 488-489
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www.thepharmajournal.com
Received: 19-02-2018
Accepted: 20-03-2018

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Clinical and functional features of chronic bronchitis development admixed with a gastroesophageal reflux disease during an additional prescription of lecithine

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Abstract

Currently the trend of expansion of bronchopulmonary system diseases is recognized all around the world, therefore the first place in the structure of case rate among adults is taken by respiration organs pathology.

There is also a growth of number of people that were diagnosed with chronic bronchitis (CB) and concomitant complicating pathology, including gastroesophageal reflux disease (GERD) that makes the process of diagnostics and treatment more complicated.

Detection of concomitant GERD in patients with CB needs diagnostic approach, treatment correction depending on morbidity of the diseases and possible development of complications.

Keywords: chronic bronchitis, gastroesophageal reflux disease

Introduction

The aim of this investigation was to analyze clinical and functional features of CB development admixed with a GERD and with additional prescription of lecithine.

The problem of combined pathology is evidenced by numerous scientific studies aimed at analyzing the clinical and functional manifestations of chronic bronchitis and the parallel version of the course of the GERD.

According to the results of foreign and national studies there is a presence of “mutual complication syndrome” that draws attention to the studying of clinical and functional features of concomitant pathology development, combination of CB with GERD. However, considering a dominance of the concomitant pathology, it results in a withdrawal criterion in scientific investigations, therefore there is much less data about features of combination and clinical diagnostic development of CB with GERD, than in case of one particular nosology [2, 3].

Materials and methods

We examined 59 patients, 17 females and 49 males aged from 19 to 73 years. All patients were at in-patient further examination and treatment at Ivano-Frankivsk Regional Department of phthysiology and pulmonology.

Criteria of entry into the investigation: establishment of CB diagnosis, frequent recidivating cough, discomfort in breast, rarely disturbing epigastric burning.

Withdrawal criteria were:

- Physical pathology in active phase or stage of incompensation, oncology and lymphoproliferative diseases;
- Gastric or peptic ulcer,
- CORD, bronchial asthma;
- Occurrence of chronic pulmonary heart;
- Occurrence of metabolic syndrome;
- Occurrence of chronic virus infection;
- Occurrence of erosive-ulcerative lesion of oesophagus and stomach;
- Undesirable reactions while using medicated intermediates;
- Intolerance of suggested medicated means;
- Absence of patient’s personal agreement for investigation.

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Examined patients were divided into two groups

Group I (30 patients) – those affected by chronic bronchitis without concomitant gastroesophageal reflux disease (control group);

Group II (29 patients) – basic group of patients affected by chronic bronchitis with concomitant gastroesophageal reflux disease.

According to the treatment patients of group II were divided into 2 subgroups.

Group II A (15 patients) – patients affected by chronic bronchitis with concomitant gastroesophageal reflux disease that were prescribed with a basic treatment.

Verification of diagnosis and its completion was done on the basis of International Statistical Classification of Diseases and related health-care problems X, clinical and physical and instrumental symptoms (productive cough not less than 3 months per year during 2 and more years, vesicular respiration at the attack phase with stertors, anamnestically 2-3 attacks per year during last 2 years, radiographic signs of bronchial walls thickening and pneumofibrosis).

Standard treatment scheme of GERD was being performed in accordance with the decree of Ministry of Healthcare of Ukraine No. 943 dated October 31, 2013 “On validation and implementation of medical and technical documents on standardization of medical help in case of gastroesophageal reflux disease”.

Group II B (14 patients) – patients affected by chronic bronchitis with concomitant gastroesophageal reflux disease, who, alongside with the basic therapy as in group II A, were prescribed additionally with lecithine at a dose of 10-15 mg/kg of body weight into one inhaling once a day during 10 days and perorally once a day during 10 days according to the medical specification.

All patients have undergone the following methods of further examination:

- Chest x-ray (CXR);
- Spirography;
- Fiber-optic bronchoscopy;
- Fibrogastroduodenoscopy.

Results and Discussion

While gathering complaints and case history it was noted that among all clinical evidences of CB the main one was cough with not abundant muculent and purulent sputum appearing mostly in the morning. Vesicular respiration with strident tones and non-productive sibilant stertors from both sides were also identified during the auscultatory assessment of lungs system function. Against the background of treatment, we subjectively noted improvement of health state and amelioration of signs in 11 patients of group II B with the additional prescription of lecithine on the 4th day of treatment.

Chest x-ray showed that patients with CB had such radiographic attributes as a diffuse peribronchial and perivascular pneumofibrosis.

Up to the present day, a spirography of pulmonary function is one of the most economic and informative method that allows identifying presence or absence of the obstructive type of respiratory distress and its degree. With the help of speed values (volume of forced expiration in the first second (VFE₁), forced lung capacity (FLC) and their proportion

(VFE₁/FLC).

Spirography results showed decrease of values of VFE₁ in two groups before treatment. But repeated spirography showed rise of values of VFE₁ that was mostly observed at group II B in which 12 patients (85.7 %) additionally took lecithine. At the control group the VFE₁ value also rose, but only in 9 patients (60 %).

According to the data from bronchoscopy patients of both groups were diagnosed with the signs of catarrhal endobronchitis. After the suggested treatment during the repeated fiber-optic bronchoscopy it was noticed that 13 patients at group II B had a considerable decrease of inflammation signs of tracheobronchial tree's mucous membrane. Number of patients reached only 53.3 % (8 patients) comparing with the basic group.

Results of fibrogastroduodenoscopy confirmed that patients of groups II A and II B had nonerodible form of GERD. Control gastroduodenoscopy wasn't performed.

Conclusion

Inclusion of lecithine into the comprehensive therapy regarding the patients diagnosed with chronic bronchitis admixed with GERD positively affects clinical and functional development that allows avoiding further disease progression and functional capacity disorder and therethrough improves patients' life quality.

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