Original Article

Structure Of Koopbiddities And Metablical Parameters With Xponic Abstructive Lung Disease

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Abstract

In recent years, chronic obstructive pulmonary disease has become a global health problem. Today, chronic obstructive pulmonary disease is the 3rd leading cause of death and the 5th leading cause of permanent disability worldwide. For the development of the venue and statistically inherent inforiating, the often encounters and the ribi -resistance has been a retrospective analysis of the Isteria, 1501 patients, which had been stagnated in the stacking of the pulm of 2021, since 2019, since 2019, since 2019, since 2019, the 2021s.

Key words: Obstructive pulmonary disease, comorbidity, pulmonary hypertension.

Relevance.

In recent years, chronic obstructive pulmonary disease has been a global health problem. To date, chronic obstructive pulmonary disease ranks 3rd among the causes of death and 5th among the causes of permanent disability worldwide. Respiratory diseases in the Republic of Uzbekistan occupy the first place in the structure of morbidity of the population. Mortality from respiratory diseases ranks second in the country, giving way to cardiovascular diseases.

The prevalence of chronic obstructive pulmonary disease in various regions of Uzbekistan ranges from 67 to 168 per 10,000 population. Comorbidity is one of the most important problems of clinical practice, which fully applies to COPD, the combination of which with some diseases significantly worsens its prognosis. Thus, according to various studies, from 20 to 50% of deaths in COPD patients are associated with "vascular" comorbidity, primarily with coronary heart disease and arterial hypertension.

Materials and methods.

To obtain objective and statistically reliable information on the incidence and comorbidity of COPD, a retrospective analysis of the medical histories of 1501 patients who were hospitalized in the Department of Pulmonology of the BOMMC from 2019 to 2021 was carried out. According to the statistics of the Bukhara Regional Health Department, the number of COPD patients in the Bukhara region in 2019 was 3,436, in 2020 – 3,968 and in 2021 4,527 people were registered (рис.2.1).

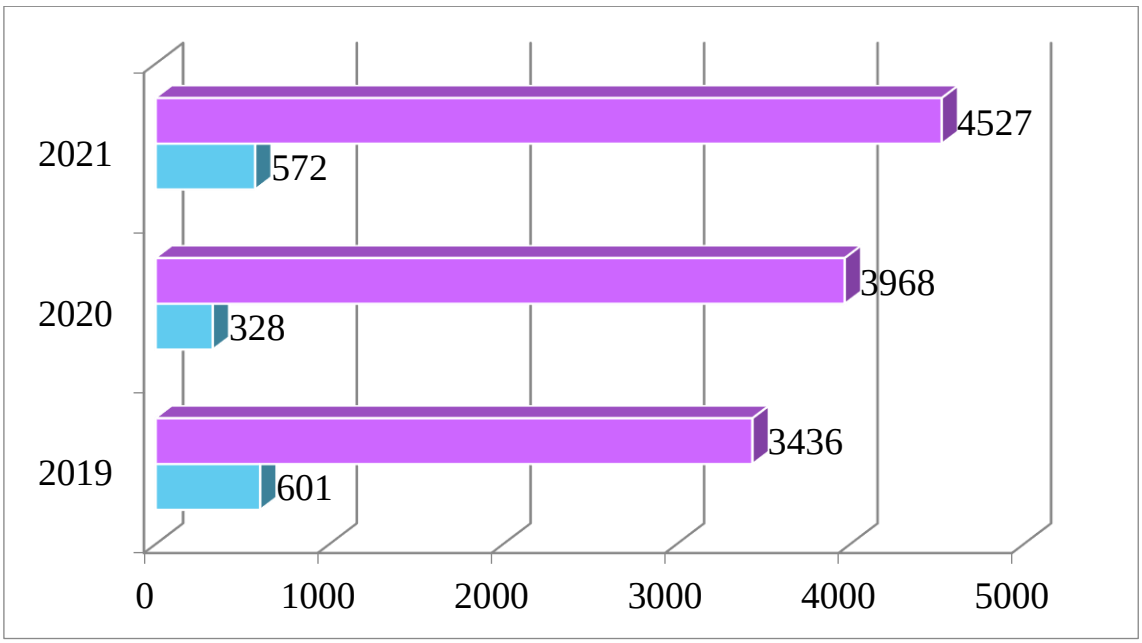

Figure 2.1. Frequency of hospitalization of patients with COPD

For the entire period of retrospective analysis from 2019 to 2021, 11931 cases of COPD were registered in the Bukhara region, of which 1501 patients received inpatient treatment at the BOMMC, which amounted to 12.6%. The prevalence of COPD among the population of the Bukhara region was 8.8 per 1000 adults.

When distributed by year, the highest frequency of hospitalization was in 2019, which amounted to 601 (40.0%), and in 2020 decreased by 1.8 times and amounted to 328 (21.9%) and in 2021 572 (38.1%), respectively, which was associated with the COVID-19 pandemic and recommendations to reduce the volume of hospitalization of patients to minimize the risk of transmission of infection.In the distribution of patients by severity, category C and D prevailed, 623 (41.5%) and 446 (29.7%), respectively (Table.2.1).

Frequency of hospitalized COPD patients by severity

Date of study (in years)	COPD								Total	
	A (1 st)		B (2 st)		C (3 st)		D (4 st)			
	абс	%	абс	%	абс	%	абс	%	абс	%
2019	80	13,3	114	19,0	260	43,3	147	24,4	601	40,0
2020	12	3,7	29	8,8	98	29,9	189	57,6	328	21,9
2021	76	13,2	121	21,1	265	46,3	110	19,2	572	38,1
Всего	168	11,2	264	17,6	623	41,5	446	29,7	1501	100

For a prospective study, 90 patients with COPD and 30 practically healthy individuals aged 45 to 59 years (average age 52.6 ± 0.61) were selected, divided into 2 main groups:

Group 1 consisted of 46 COPD patients without pulmonary hypertension,

Group 2 consisted of 44 COPD patients with pulmonary hypertension.

The control group included 30 practically healthy individuals who underwent routine examination during periodic preventive examination.

All the studied COPD patients were hospitalized in the Bukhara Regional Multidisciplinary Medical Center (BOMMC) of Bukhara in the periods from 2021 to 2022.

The main and control groups were comparable in gender and age.

The work was carried out in compliance with the ethical principles of conducting medical protocols with the participation of people as subjects, according to the WHO Helsinki Declaration.

The criteria for inclusion in the study were patients with COPD of varying severity according to GLD 2019 [17] of average age from 45 to 59 years (according to the WHO classification) and their informed consent to participate in the study.

According to the results of the clinical examination, the category of patients was also established. In group 1, out of all 46 patients, category A comprised 12 (26.1%), category B - 19 (41.4%), category C- 11 (23.9%) and category D comprised 4 patients (8.7%) (рис 2.2.)

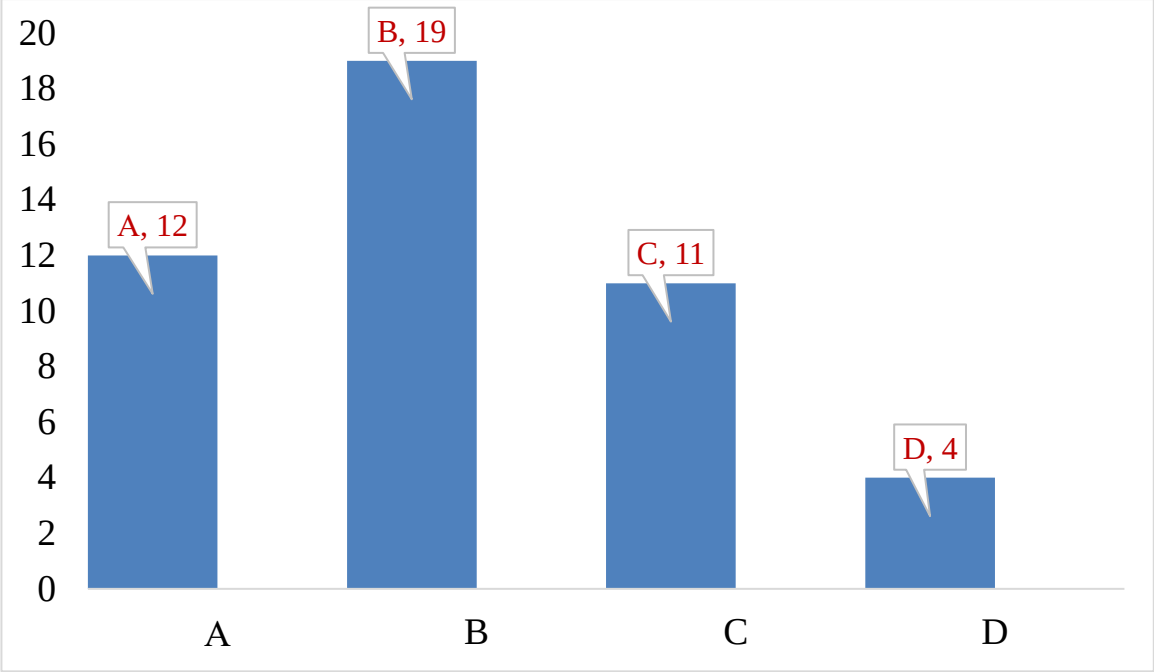

Figure 2.2. category of COPD patients

As a result, the predominance of patients A and B of Category B in the 1st group of the survey was revealed.

The distribution of patients of the 2nd group (COPD with PH, a total of 44 patients) by category showed the following::

A (i St. COPD) - 8 (18.2%).,

B (II St. COPD) — 5 (11.4%),

C (III art. COPD) - 17 (38.6%),

D (IV Art. COPD) – 14 (31.8%) (fig.2.3.).

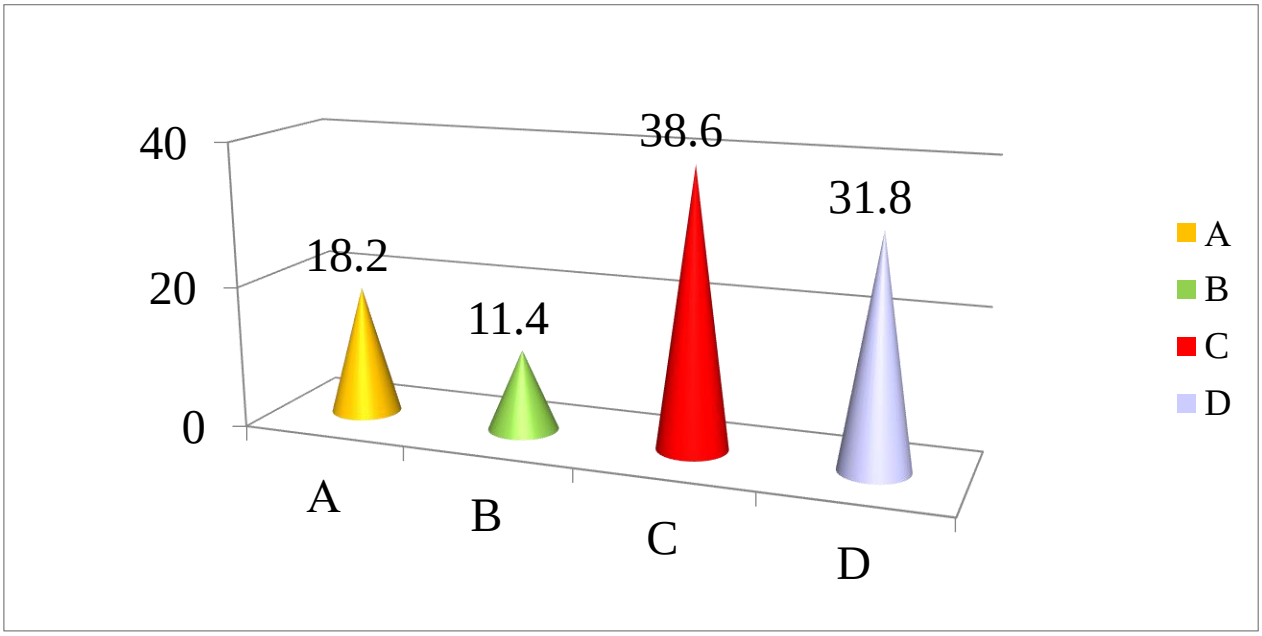

Fig.2.3 Distribution of COPD patients with LH by severity

Among the studied contingent of patients of the 2nd group, severe- C-38.6% (III st. COPD) and very severe course of the disease- D-31.8% (IV st. COPD) prevailed, due to the presence of LH (Fig.2.3).

Thus, the results of scientific research allow a wide disclosure of the mechanism of development bronchoobstructive syndrome and LH, which determines the choice of tactics for managing patients with COPD, especially with its comorbid course.

In our studies, comorbid course of COPD and omission of LH diagnosis were revealed in patients of III- and IV-FC class of group 2.

In the structure of comorbid pathology in patients of group III- and IV- FC, HYPERTENSION prevails -27.3%, GERD -38.6%, peptic ulcer - 22.7%, fatty hepatosis-6.8% and chronic pancreatitis - 4.6%. Consequently, the structure of comorbidity in group 2 patients showed a predominance of hypertension and gastrointestinal diseases. For timely diagnosis and prevention of the development of LH in COPD patients, it is necessary to develop a prevention program and an algorithm for managing patients depending on the category and severity of COPD in comorbidity.

In the structure of comorbid diseases of patients with COPD without LH, hypertension was common in 12 (26.1%), metabolic syndrome – 10 (21.7%), chronic cholecystitis – 8 (17.4%), GERD – 7 (15.2%), gastric ulcer and duodenal ulcer - 4 (8.7%), osteoporosis – 3 (6.5%) and chronic pancreatitis – 2 (4.3%). The prevalence of gastrointestinal diseases in COPD patients was associated with prolonged and continuous medical treatment of patients for the underlying disease and exposure to the same risk factors contributing to the development of both COPD and gastrointestinal diseases.

Interesting opposite results of measuring the weight and height of group 2 patients were obtained. Thus, when calculating BMI, the predominance of body weight deficiency was found in patients of group 2 (COPD with LH), which is 47.7% (21 patients) of cases. At the same time, the BMI was in the range from 16 to 18.5, which is classified as insufficient (deficit) body weight. In 13 patients (29.5%), the BMI was 25-30, which confirms the condition of obesity, 10 patients (22.7%) had normal BMI indicators.

In COPD with LH, comorbidity was caused by hypertension in 12 (27.3%), GERD in 17 (38.6%) and peptic ulcer in 10 (22.7%), fatty hepatosis in 3 (6.8%) and chronic pancreatitis in 2 patients (4.6%).

Conclusions

1. The prevalence of COPD is 8.8 ppm per 1000 adult population of the Bukhara region. The duration of the disease averaged 12.4±1.1 years, and the frequency of hospitalizations for exacerbations was 3.21± 0.36 times a year. Among all 1501 hospitalized in 2019-2021, 65.4% were people of working age.

2. The prevalence rate of COPD is 8.8 ppm per 1000 adult population of the Bukhara region. The duration of the disease averaged 12.4±1.1 years, and the frequency of hospitalizations for exacerbations was 3.21± 0.36 times a year. Among all 1501 hospitalized in 2019-2021, 65.4% were people of working age.

3. In the comorbid course of COPD, the indicator of LH is IL17A, the indicator of pulmonary fibrosis is – TGF-β. Simultaneous decrease in the concentration of TGF-β and IFN-γ is determined in pulmonary hypertension and pulmonary artery thrombosis.

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