ABSTRACTS

8th International Workshop on Lung Health

Virtual Edition
13–16 January 2021

European Respiratory & Pulmonary Diseases

SUPPLEMENT

www.touchRESPIRATORY.com

European Respiratory & Pulmonary Diseases

Volume 7 • Issue 1 • Supplement 1 • 2021

Cover image: Human lungs by krishnacreations
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ISSN 2058-4881

8th INTERNATIONAL WORKSHOP ON LUNG HEALTH

Treatable Traits: a look forward

Presidents:

Francesco Blasi
G. Walter Canonica

Chairmen:

Stefano Aliberti
Stefano Centanni
Johann Christian Virchow
Tobias Welte

VIRTUAL EDITION
13 - 16 JANUARY 2021

Organized by

AFISM
Association Internationale pour la Promotion de Formations Spécialisées en Médecine et en Sciences Biologiques

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Important note:
The abstracts in this book are listed in alphabetical order (first author, last name).

Table. 2. Spirometry indices in the examined patients.

Characteristics	Group I (non-smokers)	Group II (smokers)	p
FVC, % Me [25 %-75 %]	85,0 (77,0-92,0)	87,5(70,0-96,0)	0,8
FEV1, % Me [25 %-75 %]	51,0 (44,0 -62,0)	45,0 (34,0 -59,0)	0,04
FEV1%M Me [25 %-75 %]	54,5 (37,0-65,0)	48,0(54,0- 62,0)	0,3
MEF 75, % Me [25 %-75 %]	53,0 (41,6-68,6)	43,0 (31,3-56,4)	0,6
MEF 50, % Me [25 %-75 %]	19,5 (25,5-51,5)	40,0 (18,7-55,2)	0,2
MEF 25, % Me [25 %-75 %]	22,0 (23,8-48,0)	31,0 (15,4-34,7)	0,6
PEF, % Me [25 %-75 %]	54,5 (37,0-65,0)	50,5 (30,7,0-65,0)	0,5
IC_F, % Me [25 %-75 %]	57,5 (47,2-69,6)	52,5 (17,7-65,0)	0,8

Table. 3. Indicators of nutritional status in the examined patients with COPD.

Characteristics	Group I (non-smokers)	Group II (smokers)	p
Age, y M(SD)	55,8 (6,7)	58,3 (8,1)	0,1
Body mass , kg Me [25 %-75 %]	87,0 (82,0-88,0)	78,0(71,7-93,3)	0,7
BMI, Me [25 %-75 %]	26,3(25,0-30,0)	26,6(23,9-30,3)	0,9
Fat tissue, % Me [25 %-75 %]	25,05(24,6- 25,1)	35,1(31,1-37,5)	0,001
Muscle tissue , % Me [25 %-75 %]	39,9(34,5-44,9)	20,8 (16,8-29,7)	0,002
Visceral fat , % Me [25 %-75 %]	10,5 (8,0-12,0)	8,0 (5,5-11,0)	0,2
Waist circumference , sm M(SD)	95,5 (1,5)	91,5 (1,7)	0,3

Conclusions: Patients suffering from COPD have a violation of nutritional status. Smoking patients develop sarcopenic obesity, which progresses with an increase in the degree of nicotine addiction, correlates with the "pack / year" index and is a predictor of increased mortality in this category of patients.Increased bronchial obstruction in smokers with COPD is observed with an increase in smoking history, the number of cigarettes smoked and with a decrease in body weight.Reducing the pool of muscle tissue can be considered as an early predictor of more frequent exacerbations in smoking patients with COPD. ❑

The features of frequent exacerbators phenotype in patients with bronchiectasis in Ukraine

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Background: Exacerbations are the key predictors of the progression of bronchiectasis and mortality rising. Traditionally, the presence of *Pseudomonas aeruginosa* in sputum, underweight, low pulmonary function and previous hospitalizations are predictors of more frequent exacerbations. The objective was to determine if there are other factors of more frequent exacerbations in patients with bronchiectasis in Dnipro region of Ukraine.

Materials and methods: 76 patients with confirmed bronchiectasis by HRCT were included. Exacerbations frequency during the previous year was calculated by medical documentation analyzing. Microbiological detection of sputum samples was conducted by conventional bacteriological methods. Weight and visceral fat (VF) were measured by «Body composition monitor Omron BF511» for the static weighing and body mass index (BMI) was calculated. The methods of descriptive and non-parametric statistics were used to process the results.

Results: The median age was 56(38.5:65.5) years, 25 were men (32.9%). 39 patients (51.3%) had 0-2 exacerbations in previous year and were included in G1. 37 patients (48.7%) had 3 and more exacerbations per previous year (frequent exacerbators) and were included in G2 for analysis. The median BMI in G1 was 22.3(20.4;25.1)kg/m^2, in G2 – 26(21.6;28.4)kg/m^2, p=0.028. According to the results of the BMI calculation, the patients in were distributed as follows: in G1 underweight (≤18.5 kg/m^2) – 2 (5.1%) patients, in G2 – 4 (10.8%), p=0.56; normal weight (18.5-25 kg/m^2) in G1 – 26 (66.7%), in G2 – 12 (32.4%), p=0.006; overweight (25<BMI≤30 kg/m^2) in G1 – 11 (28.2%), in G2 – 21 (56.8%), p=0.012; obesity class I (30<BMI≤35 kg/m^2) in G1 had 3 (7.7%) patients, in G2 – 7 (18.9%), p=0.06. The median VF in G1 was 5(4;9)%, in G2 – 9(5;13)%, p=0.039. Asthma was a comorbid condition in 12 patients in the group of frequent exacerbators (32.4%), while no one patient from G1 had comorbid asthma, p=0.0001. 8 patients from 12 (66.7%) with asthma in G2 also had an overweight, the median BMI was 26(22;30.5) kg/m^2, the median exacerbation frequency was 4(3;7.5) per year.

Conclusions: Almost half of patients with bronchiectasis in Ukraine are frequent exacerbators. Based on the data received it is possible to assume that high percentage of VF and overweight in general could be factors which lead to more frequent exacerbation in patients with bronchiectasis in Ukraine even more then underweight. In turn, the presence of comorbid asthma also is one of the predictor of more frequent exacerbations. This indicates the need for lifestyle modifications to correct BMI in order to reduce the number of exacerbations. Patients with comorbid asthma and overweight require special attention to predict further high exacerbations frequency. ❑

COPD: Alfa-1 antitrypsin (AAT) serum concentration and the airway obstruction

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AAT hereditary deficiency is proved risk factor for COPD. However, only 1 % of patients (pts) with COPD have genetically determined AAT deficiency.

Aim: to evaluate serum AAT in pts with stable COPD and study whether severity of airway obstruction depends on the serum AAT concentration. Study population. Stable pts with confirmed COPD (GOLD I-IV). Exclusion criteria were gastrointestinal comorbidity, malignancy, systemic connective tissue diseases and any signs of acute inflammation.

Methods: AE history during past year, post-bronchodilator spirometry (by Masterlab, Viasis), serum AAT (by kinetic immune turbodimetry) were evaluated in all pts.

Results: 45 stable patients (pts) with COPD (GOLD I-IV) (41 (91%) men) made the study sample. Medium AAT serum concentration were within normal ranges (189,54 [147.60-209.24] mg/dl). However, in 9 pts (20 %) AAT concentration was low (under 150 mg/dl) and in 6 pts (13 %) it was borderline (150-160 mg/dl).

The difference in AAT was statistically significant in groups with different GOLD stages (p = 0.009). FEV1 positively moderately correlate with serum AAT concentration (R = 0.415, p = 0.006).

Conclusion:

1. 20 % of pts with stable COPD have low serum AAT concentration despite normal genetic profile.
2. Serum AAT concentration negatively correlate with severity of airflow limitation ❑

Hypodiagnosis of Primary antibody deficiencies in patients with COPD, Sarcoidosis and Chronic Rhinosinusitis

Ourania Koltsida[2]; G Tsiouma[3]; G Tsinti[9]; S Tryfon[4]; Zoi Danihl[9]; C Ververessou[5]; N Tsogas[6]; C Koutsouri[8]; F Bardaka[9]; F Kalala[5]; C Skoulakis[8]; Aggeliki Rapti[2]; Mathaios Speletas[1]