P535
Inhibiting effects of tiotropium bromide on neocollagenesis during 6 month treatment
Mykola Ostrovskyy, Oleksandr Varunuk, Mariana Kulynych-Miskiv, Iryna Savelikhina. Internal Medicine#3, Ivano-Frankivsk National Medical University, Ivano-Frankivsk, Ukraine

Background: Chronic obstructive pulmonary disease (COPD) is one of the most important causes of morbidity and mortality worldwide, which are the third most common cause of death (8%) in the 25 member states of the European Union.

Purpose of the study: Is the evaluation of type IV collagen dynamic in bronchoalveolar lavage (BAL) during the treatment with tiotropium bromide.

Materials and methods: The content of type IV collagen was investigated in BAL of 43 patients with stage 2 COPD before and after 1, 3 and 6 months of treatment with tiotropium bromide using ELISA.

Results of the study: The content of type IV collagen in BAL on a moment of hospitalization in patients with COPD exacerbation was (61.14 ± 1.28) ng/ml that is in 6.19 times (p < 0.05) higher than in healthy. In patients with COPD exacerbation treated within 1 month with integrated treatment including tiotropium bromide as a basic therapy we identified the reduction of type IV collagen levels in 1.41 times in BAL compared with data before treatment. We found further positive trends - reduction of type IV collagen on 79.4% with using tiotropium bromide within 2 months. The level of type IV collagen in bronchoalveolar fluid dropped in 2.23 times (p < 0.05) compared with the level before treatment. We identified practically complete normalization of type IV collagen levels in BAL only during 6-month of tiotropium bromide admission in patients with stage 2 COPD. This rate was higher only at 29.8% (p < 0.05) comparing with healthy.

Conclusions: The reduction of type IV collagen content in BAL under tiotropium bromide treatment during 6 month is a clear evidence of inhibiting effects of tiotropium bromide on neocollagenesis

P536
Effect of erdosteine on airflow obstruction and symptom recovery in severe COPD exacerbations
Maurizio Moretti1, Maria Ballabio1. 1Respiratory Medicine, ASLI Massa e Carrara, Carrara, Italy; 2Medical Department, Edmond Pharma, Milano, Italy

Introduction: Acute COPD exacerbations (AECOPD) represent an important cause of morbidity and mortality. Early and effective interventions may improve their outcome and patients’ health status.

Objective: This study evaluated the effect of erdosteine, an anti-oxidant mucolytic agent, on airflow limitation and symptom recovery at AECOPD

Methods: 15 COPD patients hospitalized for an acute exacerbation randomly received erdosteine 900 mg daily (E) or placebo (P) for 10 days in combination
with standard steroid, antibiotic and bronchodilator treatment. Pulmonary function test including spirometry (PVC, FEV1, PEFR25-75) and breathlessness, cough, and stromal space (BCSS) were measured at hospital admission, and at 10 and 30 days post-exacerbation.

**Results:**

The improvement of lung function parameters and symptom scores from baseline was significantly greater in patients receiving erdosteine. Symptom score recovery significantly correlated to improvement of airway obstruction at time 10 and 30 in the erdosteine group.

**Conclusions:** Treatment with erdosteine plus standard therapy in AECOPD proved to be effective in improving both clinical symptoms, and large and small airway impairment. Macolycytic agents with relevant antioxidant activity may allow a more rapid and complete recovery of exacerbated patients by reducing the burst of airway inflammation.

**P537**

**Analysis of therapy of community-acquired pneumonia (CAP) at the COPD patients**

Hanna Demchuk, Yuriy Mostovoy. Propedeutic Department to Internal Medicine, Vinnytsia National Medical University, Vinnytsia, Ukraine

To assess extent, accuracy and efficiency of therapy of CAP at patients (PT) with COPD case histories of 252 inpatients (54.4% males, mean age 59.03±13.75) admitted due to CAP and COPD exacerbation were analyzed. PT with non-severe and severe COPD case histories were 30.4% and 34.1%, very severe COPD - 4%.

COPD exacerbation was diagnosed according GOLD criteria. The Cardiac Infarction Injury Score (CIIS) is a diagnostic tool to assess the extent of cardiac injury in myocardial infarction. Analysis of therapy of CAP at COPD patients was performed. From 2006 to 2010 87 patients with esophageal cancer were investigated (mean age 54.93 ± 0.63 years) and followed 76 of them for 4 years. During follow up 16 patients (21.1%) died. COPD was diagnosed according GOLD criteria.

**Objective:** To determine the prevalence of PP in patients hospitalized for an acute exacerbation of COPD, and the factors associated with PP in this population.

**Subjects and methods:** ECCO is an observational, prospective, multicentre study. It included those patients admitted with a COPD exacerbation to any of the participating Internal Medicine departments consecutively between January 1, 2007, and December 31, 2008. They were all spirometry-confirmed COPD GOLD II or higher in stable condition. PP was defined as chronic concurrent use of ≥ 5 medications and excessive PP (EPP) as ≥ 10.

**Results:** 398 patients, 353 men and 45 women, with a mean (SD) age of 73.7 (8.9) years were surveyed. The average use of drugs was 5.0 (2.6). On admission 224 (56.3%) had PP and 22 (5.5%) EPP. Patients with PP had more comorbidity [Charlson index 2.8 (2.8) vs 2.3 (1.6); p=0.004] and more severe mMRC dyspnea (p=0.009) but there were no differences according to GOLD stage. On discharge the average chronic use of drugs was 6.6 (2.4) with an increase in 272 (68.3%) patients. At discharge, 296 patients (78.7%) had PP and 44 (15.9%) EPP. Patients with PP at discharge had more comorbidity and lower FEV1 (p=0.01). In a multivariate logistic regression model PP was associated with lower predicted FEV1, heart failure, hypertension, diabetes, home oxygen therapy and PF on admission.

**Conclusion:** Polypharmacy is frequently observed in COPD patients who often have comorbid chronic diseases, and PP increases the risk to experience adverse drug events.

**Unrecognised MI is common in patients with COPD.** We demonstrated that CIIS can be used for stratification of risk of death in patients with COPD. CIIS above 20 is defined as prognostically unfavorable factor or as risk factor of death in patients with COPD while CIIS < 10 is associated with lower probability of unfavorable outcome.
Objectives: COPD is a leading cause of hospital admissions.

Methods: A multi-center, cross-sectional, observational, study was conducted with admission for COPD exacerbation in a population of patients with COPD.

Results: 127 patients were included, of which 50 (39.3%) were hospitalized the previous year. Patients hospitalized for COPD exacerbations showed more use of Emergency Room, LIOT, NIMV, worse SpO2, and PVC, and worse BODE and EuroQol scores. The findings from the multivariate analysis made possible to establish two models: the one with SpO2, BODE index, and previous visits to ER had a sensitivity of 61.5% and a specificity of 87.2%, and the model that did not consider 6MWT or BODE index included SpO2, mRC dyspnea score and visits to ER had a sensitivity of 62.4% and a specificity of 86%.

Conclusions: Hospitalized COPD patients have worse oxygen saturation, BODE index, and more previous visits to the ER. Furthermore, the patients that were hospitalized the previous year had more visits to the ER, and a lower oxygen saturation compared to those not hospitalized.

P543 How can we modify the steroid insensitivity in patients with chronic obstructive pulmonary disease? The new pharmacological approach to old problem

Alireza Sadigov1, Jabrail Mammadov2, Gulzar Alieva3. 1Internal Medicine, Azerbaijan Medical University, Baku, Azerbaijan; 2Respiratory Diseases, The Institute of Pneumology and Thoracic Surgery, Baku, Azerbaijan; 3Pulmonary Medicine, Azerbaijan University of Medical Sciences, Baku, Azerbaijan

How we can modify the steroid insensitivity in patients with chronic obstructive pulmonary disease? The new pharmacological approach to old problem.

The aims of our study was to follow-up of efficacy of low-dose theophylline in patients with chronic obstructive pulmonary disease (COPD) stage 3. We have examined 43 patients with severe COPD (GOLD, 3 stage) and all patients were divided two groups: 1) 23 patients have received theophylline 200mg/day and Sereidete-Discus 1000/100 mcg/day + Tiotropium-bromide 18mcg/day without theophylline. All of patients with severe COPD were observed during 6 months. In all patients were investigated lung function, cell and cytokine (IL-6, IL-8, TNF-a) contents of induced sputum before and after treatment regime. Our investigation shown that low doses of phosphoinositol-3-kinase (PI3K) inhibitors (teophylline) might be a useful addendum to steroid therapy in patients with severe COPD. Our study reported that twice daily dose (200mg) of teophylline significantly improves FEV1 (58,7±8,9% vs 51,6±7,5% in patients control, p<0,05),reduced the number of neuterophils (24,8±5,9% vs 32,1±5,7% in patients control, p<0,05), all significantly reduced the level of pro-inflamatory cytokines,especially the level of IL-8 (23,4±6,5 pg/ml vs 38,9±7,8 pg/ml in patients control, p<0,05). Considered significantly efficacy on lung function, on cell and cytokine contents of induced sputum,we can conclude that, low doses of theophylline as the PI3K inhibitor may improve steroid sensitivity and to be approved for the management in patients with severe COPD.

788

P544 The influence of high doses of N-acetylcysteine alone or in combination with inhaled corticosteroids on quality of life in patients with COPD

Valentina Kapustina, Svetlana Ovcharenko. Faculty Therapy No.1, I.M. Sеченov First Moscow State Medical University, Moscow, Russian Federation

Background: The aim of our study was to evaluate the effects of 6-month oral N-acetylcysteine (NAC) treatment 1200 mg/day alone or in combination with inhaled corticosteroids (ICS) on health-related quality of life (QOL) in outpatients with COPD.

Methods: A total of 62 patients with stable COPD (36 males, mean age 66.8 years, GOLD stage I-IV) were included and divided into two treatment groups. Group COPD 1 received bronchodilators and NAC. Group COPD 2 received NAC and ICS in addition to bronchodilators. Clinical examination, pulmonary function tests and QOL were measured at baseline and repeated after 6 months of treatment with the Short Form 36 Questionnaire (SF-36) and St. George’s Respiratory Questionnaire (SGRQ).

Results: SGRQ symptoms, total score and SF-36 social function scores at baseline were higher in group 2 (p<0.05). SGRQ symptoms, impact, activity and total scores recorded significant improvements (p<0.001) after NAC treatment with greater changes in group 2. All improvements recorded by SGRQ scores were higher than the 4 units’ threshold for the minimum clinically important difference for both groups. The SF-36 scores indicated significant improvement in QOL in both groups, especially in physical functioning, role-physical functioning, bodily pain, general health, role-emotional and mental health domains scores. Reduction of respiratory symptoms was registered even after 1 month of NAC treatment.

Conclusion: Long-term treatment of stable COPD patients with NAC 1200 mg/day improves QOL measured both SF-36 and SGRQ with greater changes in combination of NAC with ICS.

P545 Gender differences of predictors of health status in patients with COPD

Mihaja Coliba1, Alexandru Corleataei1,2, Victor Botman1,2. 1Department of Internal Medicine, State Medical and Pharmaceutical University “Niculae Tentesium”, Chisinau, Republic of Moldova; 2Respiratory Diseases, The Institute of Pneumology and Thoracic Surgery “Chiril Dragancu”, Chisinau, Republic of Moldova

Background: In recent years there has been an increase in the incidence, prevalence and mortality of COPD patients. The influence of gender on the health status of COPD patients is studied rather superficially.

The aim of the study was to evaluate the health status of COPD patients and to identify the main predictors of quality of life in these patients according to the gender.

Methods: 80 consecutive COPD patients were enrolled into the study. Spirometric data were analyzed (FEV1, FVC, FEV1/FVC and BODE index. BMI, FEV1, MRC, 6 MWD). Health-related quality of life was assessed by the Clinical COPD Questionnaire (CCQ) and the St. George Respiratory Questionnaire (SGRQ).

Results: The cohort consisted of 40 women with mean age 65.8±3.4 years and 40 men with mean age 64.8±8.8 years. Patients in both groups had the similar severity of COPD by GOLD/ATS/ERS: FEV1% was 46.2±7.1% versus 44.9±9.5% (p=0.62). Patients in both groups had similar scores of all domains of the SGRQ: total score 62.23 vs 65.01, p=0.29; symptoms 76.46 vs 80.63, p=0.20; activity 57.49 vs 59.35, p=0.58; impact 60.49 vs 63.35, p=0.29. There were no significant differences in CCQ total score 2.96 vs 2.8, p=0.38. The forward stepwise regression analysis shows that the BODE index, severity of obstruction and comorbidities are the important predictors of health related quality of life in men, which explain 55% of the total score of SGRQ (p<0.01). In women, 6MWD, age and oxygenation explain 54.6% of SGRQ total score.

Conclusion: BODE index, degree of obstruction and comorbidities were found to be the major determinants of quality of life in men, meanwhile age, exercise capacity and level of arterial oxygenation in women.

788
The subclinical atherosclerosis and its association to clinical features of stable COPD
Ozlem Salman Sever1, Isik Conkbayar2, Melike Yuce Ege1, Serap Akcali1, Hikmet Firtal1, Tugba Kaplan1, Salid Ardic1. 1Pulmonary Disease Clinic, Ministry of Health Dikapi Y.B. Training and Research Hospital, Ankara, Turkey; 2Radiology Department, Ministry of Health Dikapi Y.B. Training and Research Hospital, Ankara, Turkey

The link between COPD and atherosclerosis (AS) has been speculated but such information at clinical features of COPD and its relation to AS is limited. To evaluate subclinical AS in patients with COPD 33 male COPD patients and 15 healthy male control subjects included the study. Subjects with exacerbation, DM, renal failure, cardiac diseases excluded. All the subject underwent spirometry, blood sampling, carotid artery USG, 24 hour oxygen saturation recording via a holterometer. We determined carotid artery intima-media thickness (CAIMT) as indicator of subclinical AS. Mean CAIMT was greater in COPD group (p=0.005).

Table 1. Subject characteristics

<table>
<thead>
<tr>
<th>COPD group (n=33)</th>
<th>Control group (n=15)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (yr)</td>
<td>56.8±7.6</td>
<td>51.8±4.2</td>
</tr>
<tr>
<td>BMI, kg/m²</td>
<td>24.5±4.9</td>
<td>26.3±5</td>
</tr>
<tr>
<td>Pack-year history</td>
<td>42±29.3</td>
<td>24±23.8</td>
</tr>
<tr>
<td>Duration of illness, yr</td>
<td>8.9±6</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Systolic BP, mmHg</td>
<td>130±19.9</td>
<td>118±16.1</td>
</tr>
<tr>
<td>Diastolic BP, mmHg</td>
<td>79±11.9</td>
<td>72±8.6</td>
</tr>
<tr>
<td>CRP, mg/l</td>
<td>6.04±4.5</td>
<td>3.4±1.1</td>
</tr>
<tr>
<td>% FEV₁, %</td>
<td>44±17.5</td>
<td>191±10±13</td>
</tr>
<tr>
<td>% FVC</td>
<td>57.2±16</td>
<td>104±15±3</td>
</tr>
<tr>
<td>Average saturation in 24 hours</td>
<td>90±3.7</td>
<td>94±9.1±2</td>
</tr>
<tr>
<td>T%90</td>
<td>32.6±18</td>
<td>3.4±10±1</td>
</tr>
<tr>
<td>Mean CAIMT</td>
<td>0.802±0.19</td>
<td>0.85±0.07</td>
</tr>
</tbody>
</table>

Multivariate stepwise analysis showed significant associations between CAIMT and decreased % FEV₁ (p=0.018) and between systolic BP (p=0.004) independent of age, BMI, duration of illness, diastolic BP, % FVC, CRP. T90%. Although the duration of COPD, T90% and CRP correlated with CAIMT, impaired lung function and severity of systolic blood pressure the predict CAIMT.

Conclusions: 1. The global prevalence of HD in our cohort of patients with an acute exacerbation of COPD was 37%.
2. In this setting, physical examination, an abnormal ECG, an EF<50% and a NTproBNP value >1200 pg/mL, could help to identify patients with a probable HD.
3. Fifty-six% of readmissions were patients in GOLD stage IV.

P548
COPD circle of care: Patient centred education and counselling tool for COPD self-management
Charles Chan. Medicine, University of Toronto, Toronto, ON, Canada

Background: Current gaps exist between healthcare professionals and COPD patients in effective communication & counselling on patient self management. Aim and objective: To develop a patient centred counselling tool, based on Canadian Clinical Practice Guidelines, for COPD self management that will meet the needs of family physicians, nurses, respiratory therapists, COPD educators & pharmacists responsible for COPD patient education. Methods: 7 national stakeholder organizations and 14 healthcare professionals from across Canada collaborated in the development of a patient centred COPD education/counselling tool. A core development board (3 COPD nurse educators, 1 pharmacist, 1 family physicians and 1 respirologist) developed the core materials. Input and direction was then provided by 3 regional committees (each comprised of 2-3 healthcare practitioners) to ensure regional nuances and national application of the tool. The national stakeholder organizations ensured that the tool meet the requirements of the respective organizations. The tool was tested with COPD patients to ensure usability and validity.

Results: A tool with universal graphics and language in a paper format will be presented at the ERS. The tool contains self management strategies for preventing acute exacerbations, breathlessness, signs of worsening COPD and action plans.

Conclusion: An effective patient education/counselling tool is required for successful communication between healthcare professionals and patients on COPD patient self-management. The utility and clinical impact of the tool will require HCP education and training.

P549
COPD circle of care: Patient centred education and counselling tool for COPD self-management

P550
Influence of tiotropium bromide (TB) on the severity of clinical, functional symptoms and health-related quality of life (HRQL) in COPD patients (pts)
Lyudmyla Konopkina, Tetyana Petrovska, Vitalii Berezovskyi, Bogdana Basma. Faculty Therapy and Endocrinology, State Medical Academy, Dnipropetrovsk, Ukraine

Aim: To study influence of TB on the severity of clinical, functional symptoms and HRQL in COPD pts.

Materials and methods: We studied 24 pts in stable phase of COPD (age – 64.3±2.3 yrs), who used fenoterol/pratropium bromide (Berodual®-H), before and after 2-month’s course of treatment with TB (Spiriva® HandyHaler). Measurements included clinical status (severity of cough score (1 – mild, 2 – moderate, 3 – severe), quality of mucus score (1 – low, 2 – moderate, 3 – high), severity of breathlessness MRC-score), spirometry, St. George’s Hospital Respiratory Questionnaire (SGRQ).

Conclusions: 1. The global prevalence of HD in our cohort of patients with an acute exacerbation of COPD was 37%.
2. In this setting, physical examination, an abnormal ECG, an EF<50% and a NTproBNP value >1200 pg/mL, could help to identify patients with a probable HD.
3. Fifty-six% of readmissions were patients in GOLD stage IV.
Results: Results are presented in the Table.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Before treatment</th>
<th>After treatment</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cough</td>
<td>1.27±0.14</td>
<td>0.64±0.15</td>
<td>0.004</td>
</tr>
<tr>
<td>Mucus</td>
<td>0.91±0.21</td>
<td>0.36±0.10</td>
<td>0.005</td>
</tr>
<tr>
<td>Breathlessness</td>
<td>1.91±0.16</td>
<td>1.00±0.19</td>
<td>0.001</td>
</tr>
<tr>
<td>FVC (% pred.)</td>
<td>84.8±5.86</td>
<td>92.3±5.64</td>
<td>0.361</td>
</tr>
<tr>
<td>FEV1 (% pred.)</td>
<td>53.6±4.32</td>
<td>61.8±4.89</td>
<td>0.214</td>
</tr>
<tr>
<td>FEV1/FVC</td>
<td>0.53±0.04</td>
<td>0.56±0.05</td>
<td>0.651</td>
</tr>
<tr>
<td>PEF (% pred.)</td>
<td>50.4±4.21</td>
<td>61.0±5.14</td>
<td>0.117</td>
</tr>
<tr>
<td>SGRQ symptoms score</td>
<td>61.7±3.10</td>
<td>41.6±4.05</td>
<td>0.000</td>
</tr>
<tr>
<td>SGRQ activity score</td>
<td>53.6±3.33</td>
<td>47.7±8.03</td>
<td>0.613</td>
</tr>
<tr>
<td>SGRQ impacts score</td>
<td>42.4±6.97</td>
<td>40.2±16.9</td>
<td>0.814</td>
</tr>
<tr>
<td>SGRQ total score</td>
<td>48.7±6.13</td>
<td>42.8±6.67</td>
<td>0.483</td>
</tr>
</tbody>
</table>

Conclusion: 1) 2-month’s course of treatment of COPD pts with TB leads to more rapid improvement of clinical status than of usual course; 2) functional score of SGRQ reflects clinical changes of COPD pts and may be use as an objective parameter during introductions of new treatment programs.

P551

The comparative characteristic of respiratory muscles function in patients with bronchial obstruction

Svitlana Panina, Olena Myronenko. Internal Medicine Department, Dnipropetrovsk State Medical Academy, Dnipropetrovsk, Ukraine

Almost all patients with bronchial obstruction have respiratory muscles (RM) dysfunction of various severity levels.

The aim of our investigation was to evaluate the change of RM function in bronchial asthma (BA) and chronic obstructive pulmonary disease (COPD) patients on different stage of diseases.

Study population: 48 COPD and 12 BA patients were included. Subjects were divide depending on a stage of disease. The mean age of COPD pts. in 52.33±7.00 years, 8 females (22.3%) and 28 (77.7%) males. In gr. with BA the mean age is 49.78±5.64 years, 2 females (41.7%) and 7 (58.3%) males.

Methods: Spirometry and pneumotachometry were performed by means Master/Screen Body/Diff (*Jaeger*, Germany. FEV1 and Pimax were evaluated.

Results: Results are performed in table 1.

<table>
<thead>
<tr>
<th>BA I st</th>
<th>BA II st</th>
<th>BA III st</th>
<th>COPD I st</th>
<th>COPD II st</th>
<th>COPD III st</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEV1 (%)</td>
<td>83.4±4.35</td>
<td>66.4±5.26</td>
<td>44.3±3.82</td>
<td>91.25±5.23</td>
<td>66.0±9.53</td>
</tr>
<tr>
<td>Pimax, %</td>
<td>74.05±2.1</td>
<td>55.75±3.7</td>
<td>49.99±5.3</td>
<td>47.22±3.12</td>
<td>51.77±3.27</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>p&lt;0.05</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Conclusion: We estimate the dysfunction of RM in all groups pts with BA and COPD. Correlation interrelation between FEV1 and Pimax in pts with BA was positive (r=0.78), in COPD pts – negative (r=0.94). We assume, that obtained data should be considered at drawing up of individual programs of treatment and rehabilitation of COPD and BA pts.

P552

Comparative characteristics of protein metabolism disorders in patients with occupational and non-occupational COPD

Svitlana Panina, Nataliya Sanina, Nataliia Gondulenko, Tetyana Igumnova. Internal Medicine Department, Ukrainian State Institute of Medical and Social Problems of Disability, Dnipropetrovsk, Ukraine

Respiratory diseases, particularly COPD, set a significant place in the disability of Ukrainian population. In the industrial regions of the country considerable place in disability structure sets occupational COPD. Occupational and non-occupational COPD have their peculiarities of the course, particularly at the biochemical level.

In order to identify biochemical differences between patients with COPD and occupational COPD we examined 32 patients with occupational COPD (group 1) and 32 patients with non-occupational COPD (group 2). These groups of patients were comparable in all major characteristics. The control group consisted of 30 healthy individuals.

Study of biochemical homeostasis of patients showed a significant decrease of α1-globulin level in patients of 2nd group compared with the 1st and the control groups, that shows the prevalence of catabolism due to the long course of chronic inflammation in broncho-pulmonary system and failure of α1-antitrypsin synthesis in these patients. Also it was shown increasing levels of α2-globulin and β-globulins in patients of the 2nd group compared with the groups 1st and control, indicating expressed activity of systemic inflammation; increased γ-globulins level demonstrates a greater intensity of immune processes.

All the correlations were significant with p<0.01.

The results suggest a more pronounced shift of protein metabolism in patients with non-occupational COPD, the prevalence of catabolic processes, active systemic inflammation and intensification of immune processes. This may indicate the need of including anti-inflammatory drugs in the rehabilitation of such patients.

P553

Evaluation of incontinence and quality of life in patients with chronic obstructive pulmonary disease (COPD) and bronchectasis

Claire Brockwell, Allan Clark, Alexandra Baker, Ben Hecker, Gabriela Pardo, Helen Little, Andrew Wilson. School of Medicine, University of East Anglia, Norwich, United Kingdom

Background: Incontinence is common and more prevalent in respiratory disease. Despite this, the effect of incontinence on quality of life in respiratory patients is unknown.

Methods: We conducted a case controlled questionnaire study. We sent the International Consultation on Incontinence Modular Questionnaire (ICIQ), the Leicester Cough Questionnaire (LCQ), the EuroQol 5D (utility) and the MRC questionnaire to 150 patients with COPD, 150 patients with bronchectasis and 150 controls (orthopaedic surgical patients). The groups were age and gender matched. Mann-Whitney test was used to determine effects of gender and disease.

Results: 164 (81 male) patients and 53 (22 male) controls replied. Overall, females (68%) had more incontinence than males (41%). Median (IQR) values for ICIQ were significantly (p=0.05) higher for female patients (4 (0-7.5)) but not for male patients (0 (0-4)) compared to controls (3 (0-5.5), 0 (0-3.7) respectively). However, male, but not female, patients with incontinence had a significantly (p=0.01) lower utility score, despite no difference in MRC (table).

Effect of incontinence on quality of life

<table>
<thead>
<tr>
<th>Number</th>
<th>Age, yrs</th>
<th>ICIQ*</th>
<th>Utility*</th>
<th>LCQ*</th>
<th>MRC*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>Continues</td>
<td>23</td>
<td>72.7 (10.4)</td>
<td>0 (0-7.9)</td>
<td>17.4 (15.0-18.4)</td>
</tr>
<tr>
<td></td>
<td>Incontinent</td>
<td>58</td>
<td>67.6 (11.3)</td>
<td>7 (5.0-10.5)</td>
<td>0.7 (0.6-0.9)</td>
</tr>
<tr>
<td>Male</td>
<td>Continues</td>
<td>48</td>
<td>71.7 (8.6)</td>
<td>0 (0-0)</td>
<td>0.8 (0.6-0.9)</td>
</tr>
<tr>
<td></td>
<td>Incontinent</td>
<td>31</td>
<td>72.4 (9.3)</td>
<td>5 (3.7-6.0)</td>
<td>0.6 (0.5-0.8)</td>
</tr>
</tbody>
</table>

*p values as median (IQR).

Conclusion: Incontinence is more common in females but males with incontinence had more impaired overall health related quality of life.

P554

Initial clinical phenotype of COPD: Correlation with the natural history of the disease

Luca Fasano1, A.M. Grazia Pacilli1, Paolo Carbonara1, Valerio Di Scioscio2, Elia Valentini3, Giacomo Miste4, Angela Montanari5, Mario Fabbri6, Maurizio Zompatori6, Stefano Nava7. Respiratory and Critical Care Unit, S Orosi Malgiogi University Hospital, Bologna, Italy; 2 Cardiological Radiology, S.Orosi Malgiogi University Hospital, Bologna, Italy; 3 Sfontanis, University, Bologna, Italy

The chronic airflow limitation characteristic of COPD is caused by a mixture of small airway disease (obstructive bronchiolitis) and parenchymal destruction (emphysema), the relative contributions of which vary from person to person. Aim of this study was to evaluate, at the time of the first specialist evaluation, the differences in lung and cardiac function and HRCT extent of emphysema in patients with a spirometric diagnosis of COPD but different initial clinical presentation (chronic bronchitis [CB] versus dyspnea [Dy]). 45 consecutive patients referred to our outpatients service by their GP were divided according to their main first symptom (chronic bronchitis or dyspnea). Patients with Dy had an obviously higher dyspnea score vs those with CB (MRC 2.9±0.9 versus 2.3±0.6, p=0.02) and produced much less sputum (p<0.001). The severity of obstruction was similar in the two groups (FEV1 31±11% predicted in both groups, p=0.89; FEV1/V/C 26±6% vs 27±7%, respectively for Dy and CB, p=0.62). The CB had worse arterial blood gases (PaO2 62±12 vs 69±10 mmHg, p=0.03; PaCO2 50±7 vs 45±8 mmHg, p<0.02) and showed a higher proportion of pulmonary artery diameter >29 mm (a surrogate sign of pulmonary hypertension) 18/24 vs 8/21 pts, p=0.02). Dy group had larger CT emphysema extension score (35±16 vs 27±13%, even if this difference did not reach statistical significance, p=0.06). In conclusion we have shown differences between the two COPD phenotypes with similar airflow limitation, with CB patients showing worst ABGS and indirect signs of pulmonary hypertension, while Dy group was characterized by a higher degree of emphysema.

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