P3600

Pulmonary features of autosomal dominant hyper-IgE syndrome (AD HIES)
Hanna Dmenska1, Edyta Heropolitanska 2, Barbara Pietrucha 2, Ewa Bernatowska2.
1 The Pulmonology Outpatient’s Clinic, The Children’s Memorial Health Institute, Warsaw, Poland; 2 Department of Gastroenterology, Hepatology and Immunology, The Children’s Memorial Health Institute, Warsaw, Poland

AD HIES is characterized by recurrent severe pulmonary infections, pneumatoceles, eczema, staphylococcal abscesses, mucocutaneous candidiasis, abnormalities of bone and connective tissue and elevated serum IgE. Mutations in signal transducer and activator of transcription 3 (STAT3) have recently been found to account for most cases.

Aim: The aim of the study is to present clinical phenotype of AD HIES.

Materials and methods: A group of 22 HIES pts were genetically analyzed. The mutations in STAT3 were confirmed in 7 AD HIES pts, presented here. Recurrent and severe pulmonary infections were found in all pts except one (pt 7) at various frequency. The typical complications of pneumomas were the formation of pulmonary cyst and abscesses. Long term complications included pneumatocele and bronchopleural fistulae. In several cases lobectomy was performed. The structural abnormalities were then sites of fungal and Gram (-) infection.

Results:

Table 1. Patient characteristics

<table>
<thead>
<tr>
<th>Pt. ID</th>
<th>Sex</th>
<th>Age [yr]</th>
<th>STAT3 mutation</th>
<th>P</th>
<th>LA</th>
<th>L</th>
<th>PC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. JJ</td>
<td>M</td>
<td>25 / *6</td>
<td>c.1110-2A&gt;G splice-site</td>
<td>6</td>
<td>–</td>
<td>–</td>
<td>+</td>
</tr>
<tr>
<td>2. DD</td>
<td>M</td>
<td>22 / *3</td>
<td>1909 G&gt;A V637M</td>
<td>4</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>3. LT</td>
<td>M</td>
<td>20 / *11</td>
<td>1909 G&gt;A V637M</td>
<td>13</td>
<td>+</td>
<td>+</td>
<td>+ actinomycosis</td>
</tr>
<tr>
<td>4. KZ</td>
<td>F</td>
<td>15 / *2</td>
<td>1144 C&gt;T R382W</td>
<td>10</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>5. WF</td>
<td>F</td>
<td>14 / *5</td>
<td>1145 G&gt;A R382Q</td>
<td>17</td>
<td>–</td>
<td>+</td>
<td>+ aspergilloma</td>
</tr>
<tr>
<td>6. MK</td>
<td>M</td>
<td>11 / *3</td>
<td>2141 C&gt;G T714A</td>
<td>5</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>7. MB</td>
<td>M</td>
<td>3 / *3</td>
<td>1145 G&gt;A R382Q</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

*Age at diagnosis (yr). P: pneumonia; LA: lung abscess; L: lobectomy; PC: pneumatocele.

Conclusions: 1. Early recognition of the HIES enables to introduce the right kind of therapy. 2. Pneumonias should be treated aggressively to try to prevent parenchymal damage. 3. If pneumatocele and bronchiectasis are present, antimicrobial prophylaxis covering Gram (-) bacteria and fungi is needed.

P3601

Is quantitative HRCT related with diagnostic yield of fiberoptic bronchoscopy in sarcoidosis?
Serpil Akten, Nurdan Kokturk, Gonca Erbas, Bulent Celik, Haluk Tuktas.
Pulmonary Medicine, Gazi University School of Medicine, Ankara, Turkey

This study aimed to evaluate the diagnostic yield of fiberoptic bronchoscopic (FOB) modalities and its relation with quantitative findings with high resolution computerized tomography (HRCT). 64 patients that consists of 19 males and 45 females with the mean age of 45 diagnosed with sarcoidosis with complete records of HRCT were retrospectively recruited for a time period of Feb 2000 to Jan 2010. HRCT scans were retrospectively assessed in random order by an experienced observer without knowledge of the bronchoscopy result or lung function tests. The diagnostic yield of transbronchial biopsy (TBB) was 43.6. Although it did not reach statistical significance, the lobar HRCT score in the sampled lobe was associated with a positive TBB result. Bronchial mucosa appearance was significantly related with positive mucosal biopsy (MB). The diagnostic yield of MB was 24.5 in general patient population however in patients with abnormal mucosa this rate was increased up to 84.6 (p=0.000). The diagnostic yield of transbronchial needle aspiration (TBNA) was 25.7%. Right hilar and subcarinal lymph nodes were the most diagnostic sites. The diagnostic yield was significantly higher in patients who had larger size of lymph nodes (p=0.007). Quantitative HRCT score did not correlate with the findings of MB and TBNA. Quantitative HRCT did not cause remarkable impact on the results of diagnostic work up of FOB.

P3602

Importance of fatigue measurement in sarcoidosis patients
Branislav Gvozdenovic1, Violeta Vucinic-Mihailovic2, Jelena Marinkovic3.
1 Pulmonary Department, Vozdovac, Belgrade, Serbia; 2 Clinic for Pulmonary Diseases, Clinical Center of Serbia, Belgrade, Serbia; 3 Institute of Medical
P3603  
**Sarcoidosis patients with cardiac involvement in the National Tuberculosis & Lung Disease Research Institute in Warsaw:** 3 years experience. Magdalena Martusewicz-Boroń1, Anna Kempisty2, Elbierta Wiart1, 13rd Lung Diseases Dept., National TB & Lung Diseases Research Institute, Warsaw, Poland; 21st Lung Diseases Dept., National TB & Lung Diseases Research Institute, Warsaw, Poland

**Introduction:** Sarcoidosis is a systemic granulomatous disease with predominant manifestation in the lungs, however other organs can be involved, including heart. This disease is characterized by a systemic inflammation of small blood vessels and lymph nodes. Cardiac involvement is an important cause of death in sarcoidosis patients and it is often a manifestation of other organ involvement. The prevalence of cardiac sarcoidosis is unknown, but it is estimated to be about 10–15% of all sarcoidosis patients. The clinical presentation of cardiac sarcoidosis is variable and can range from asymptomatic to life-threatening presentations.

**Material and Methods:** The study included all patients who were diagnosed with sarcoidosis and were admitted to the National Tuberculosis & Lung Disease Research Institute in Warsaw from January 2008 to October 2010. The diagnosis of cardiac sarcoidosis was confirmed by echocardiography or cardiac magnetic resonance imaging. The aim of the study was to determine the prevalence and clinical characteristics of cardiac sarcoidosis in our population.

**Results:** In total, 933 sarcoidosis patients were seen in two departments in the almost 3 years period. Multorgan sarcoidosis (D86.8) was detected in 102 cases (10.9%). The cardiac sarcoidosis was confirmed in 30 patients (3.2%) of the entire group. There were 19 males (63%) and 11 females (37%). 5 cases in stage I, 25 in stage II. The mean age was 45.5±12.6 years (range: 28 - 74). The time from the first diagnosis of sarcoidosis to detection of heart involvement was 10 months (median, CI 90% range 0 to 6.4 years).

**Conclusion:** Cardiac sarcoidosis is a significant clinical problem. The prevalence of cardiac involvement in sarcoidosis patients diagnosed or followed up in 1st and 3rd Lung Diseases Departments of National TB & Lung Diseases Research Institute in Warsaw is 3.2%.

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P3604  
**Primary thoracic amyloidosis: Rare disease and hard diagnosis** Manel Loukili1,2, Nawel Chouachi2, Nawel Ben Salem1,2, Mourad Zarrour1,2, Sana Chikhoui1,2, Hajar Racili1,2, Ayda Ayadi1,2, Abdelatif Chabouni1,2, 1Pneumology Department, A. Mami Hospital, Ariana, Tunisia; 2Research Unit IRC MSP-MESRS, El Manar University, Tunis Medical School, Tunis, Tunisia; 3Anatomopathology Department, A. Mami Hospital, Ariana, Tunisia

**Amyloidosis** is a disease caused by extracellular deposition of complex protein-

poly saccharide in a β-pleated configuration within soft tissues. Primary thoracic deposition of amyloid is scars. To explore the different thoracic manifestations of primary thoracic amyloidosis (PTA) and its diagnosis difficulty, we retrospectively analyzed cases of PTA hospitalized in our department between 2007 to 2009. PTA (AL type) diagnosis was confirmed by pathological study in all cases. All patients were investigated by chest x ray, fiberoptic bronchoscopy and chest and abdominal CT scan. Our study concerned 5, 63 years mean aged (34-77)ns men. PTA discovery was secondary to respiratory symptoms in 4 cases and fatal in 1 case. Amyloidosis was systemic in 1 case and localized to the thorax in 4 cases: 1 involved pleura, 2 involved mediastinal lymph nodes, 2 the bronchial tree and 2 the lung parenchyma. An association of 2 different thoracic localization was noted in 2 patients. The average time of diagnosis was 4 months, based on open lung biopsy in 2 cases, mediastinal lymph node biopsy in 2 cases and transbronchial lung biopsy in 1 case. Respiratory lung function was normal in 3 patients. Amyloidosis was complicated by chronic respiratory failure in 1 patient and severe obstructive disease in 1 patient. Treatment consisted in colchicin with a stable trend (1 case), systemic corticosteroids with clinical deterioration (2 cases), lung resection (2 cases). One patient disappeared during follow up. PTA diagnosis is often delayed. This is due in part to the localized features of amyloidosis, non specific symptoms and frequent misdiagnosis.

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P3605  
**Tracheobronchopathia osteochondroplastica: End stage of tracheo bronchial amyloidosis** Houda Gharsalli1, Saloua Azzabi1, Besma Ourari Dhahri1, Walid Feki1, Soumaya Rammach Rommani1, Mohamed Ali Baccar1, Jihène Ben Ammar1, Mezjar Salah Said1, Leila El Gharbi1, Bichem Aouina1, Hend Bouchachi1, 1Pulmonary Diseases Department, Charles Nicolle Hospital, Tunis, Tunisia

**Introduction:** Tracheobronchopathia osteochondroplastica (TO) is an uncommon benign disease affecting the cartilaginous wall of large airways. Etiology of TO is unknown, however review of literature reveals an intimate interrelationship between TO and amyloidosis and many authors suggest that TO is an advanced stage of primary tracheobronchial amyloidosis. We describe a case illustrated TO as an end stage of amyloidosis.

**Case report:** A 47 year old nonsmoker woman was admitted in 1997 for dyspnea reported since 2 years. Pulmonary function test showed an obstructive pattern. Asthma was suspected but we haven’t alleviation of symptoms with appropriate treatment. Fiberoptic bronchoscopic examination revealed infiltration and nodular lesions protruding into the lumen of the lower third portion of trachea and the main bronchi. AA amyloidosis was confirmed by endobronchial biopsy. Extensive investigations led to rule out systemic amyloidosis. Recurrent lower respiratory tract infections marked the outcome of our patient treated by antibiotics. Thirteen years after; the patient was admitted for cough, dyspnea, wheezing. Previous treatment with prednisone and inhaled bronchodilator had no notable response. Fiberoptic Bronchoscopic examination demonstrated nodular lesions distributed along the cartilaginous rings of lower portion of trachea and the main bronchi. Endobronchial biopsy confirmed the TO.

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P3606  
**Acute cardiomypathy in rheumatoid associated lung disease** An Marmer1, Tom Vale1, Chris Turnbull1, Colin McCabe1, Nejman Qureshi1, Annabel Nickoll1, 1Oxford Centre for Respiratory Medicine, Oxford NHS Trust, Oxford, United Kingdom; 2Department of Cardiology, John Radcliffe Hospital, Oxford, United Kingdom

A 67 year old lady with rheumatoid arthritis on prednisolone, methotrexate and hydroxychloroquine was admitted with chest pains, breathlessness and blood stained sputum. She had a history of obstructive bronchiolitis and bronchiectasis secondary to rheumatoid, previously treated with cyclophosphamide and Rituximab immunosuppression. An ECG at presentation showed T wave inversion in the anteroseptal leads. Subsequent Troponin I was positive. CT pulmonary angiography revealed no evidence of PE. Antiphaselet agents were commenced. Serial ECGs showed dynamic changes.
Thematic Poster Session

Hall 2-3 - 12:50-14:40

Tuesday, September 27th 2011

Department of Pharmacy, School of Pharmacy, Shahid Beheshti University of Medical Sciences, Tehran, Islamic Republic of Iran; 1Pharmaceutical Care Department, Chronic Respiratory Disease Research Center, National Research Institute of Tuberculosis and Lung Disease, Tehran, Islamic Republic of Iran

Introduction: Detection of adverse drug reactions (ADRs) in hospitals provides a useful tool of drug related morbidity on the healthcare system. Studies have shown that between 1.7% and 25.1% of hospital inpatients experience an ADR during their hospitalization.

Aim: This study aimed to analyze incidence, pattern, seriousness, and preventability of hospital-acquired ADRs, in medical wards of a pulmonary teaching hospital in Iran.

Methods: Clinical pharmacist residents were trained to report all suspected ADRs through ADR-reporting yellow forms. The incidence, pattern, seriousness, and preventability of the reported ADRs were analysed.

Results: During the period of 24 months, for 16125 patients, 312 ADR reports were received. The most frequently reported reactions were due to anti-infective agents (26.54%). Ceftiraxone accounted for the highest number of the reported ADRs among anti-infective agents. The gastro-intestinal system was the most frequently affected system (21.78% of all reactions). Eighteen percent of the ADRs were reported as serious reactions. Fifty of the ADRs were classified as preventable.

Conclusions: Our study shows that ADRs are an important cause of morbidity in our hospital. Disease prevalence and drug use patterns in our hospital differ markedly from those of generalized ones. These differences affect the frequency and nature of ADRs. Preventive measures should be taken to minimize the occurrence of ADRs.

P3610 Importance of cardiac biomarkers in the evaluation of acute pulmonary thromboembolism severity, mortality and complicated clinical course

Gulseren Sagcan1, Orhan Arseven1, Gulfer Okumus 1, Remisa Gelisgen 2, Fatih Urum, 3CHEST, Istanbul Medical Faculty, Istanbul, Turkey; 2Biochemistry, Istanbul University Cerrahpaşa Medical Faculty, Istanbul, Turkey

Background: Severity of pulmonary thromboembolism (PTE) is related to the determination of early mortality risk rather than distribution and the load of trombus. To determine the risk evaluation biomarkers level have important roles than echocardiography, alternatively.

Aim: Investigation of the usefulness of biomarkers in the determination of 3 months complicated clinical course (CCC) and mortality, and also acute PTE risk level.

Material and methods: Demographic characteristics, history, clinical findings, risk factors, additional diseases, hemodynamic symptoms of 47 patients (22M, 25F) with objectively documented diagnosis of PTE, were recorded. Before PTE treatment, serum and plasma samples were kept to measure the levels of D-Dimer, cTnT, Mb, NT-ProBNP, HAFBP and GDF-15. Patients were followed for 3 months for complication and mortality.

Results: NT-proBNP levels were similar in submassive and nonmassive groups but they were significantly higher in massive group when compared to other groups (p<0.05). GDF-15 levels were significantly higher in massive group when compared to nonmassive group (p=0.013). Mortality was present in 9 patients. When all the deaths caused are predicted by D-Dimer, HAFBP, NT-proBNP and GDF-15 levels, deaths caused by PTE were only predicted by D-Dimer, HAFBP and GDF-15 levels. NT-proBNP and GDF-15 15 valuates were predicted the complications (p< 0.05).

Conclusions: This biomarkers used in this study had no significant role in the differentiation of nonmassive and submassive groups. However, NT-proBNP and GDF-15 have been shown that these biomarkers would be beneficial for mortality and CCC, in prediction of 3 months. 

P3611 Is utility of D-Dimer test undermined because of overuse in routine clinical practice?

Gautam Marwah, Helen Taylor, Selva Selvaraj, Stephen Murphy. Medicine, University Hospital of Hartlepool, Hartlepool, United Kingdom

Introduction: In suspected VTE a low pre-test probability and negative D-Dimer is associated with risk of VTE < 2%. However d-dimer is raised in many conditions and utility depends on VTE prevalence in population tested (9.5-19% in validation studies). Purpose of study was to assess utility of d-dimer testing in routine practise.

Methods: Case records of patients d-dimer tested in A&E or on admission to hospital were reviewed. Data included: clinical features, admission diagnosis and pre-test probability if recorded. Investigators estimated VTE-risk, calculated post-test probability of VTE and impact on imaging

Results: 96 cases included; 52% female, mean (SD) age 61yrs. Symptoms: chest pain 44.5%; leg pain/swelling 28%; dyspnea 17%, syncope 7.5%, other 3%. Admission diagnosis: VTE likely 10%, VTE possible 57%, other diagnosis 33%. Pre-test probability done in 23%. Investigator pre-test VTE-risk: High (H) 9%, Moderate (M) 20%, Low (L) 33%, Very Low (V) 38%. D-dimer positive 43% (H 100%, M 64%, L 44%, V 41%; p<0.05). p=0.01. VTE-Imaging if d-dimer +ve (VTE-risk M, L, V) 41%+ 11.3% OR 5.1 (95% CI 2.7; 10.1) p<0.01. Prevalence of VTE was 2.3% (sensitivity 1.0, specificity 0.58, negative likelihood ratio 0.0-1.1).

P3609 Adverse drug reactions in a pulmonary teaching hospital: Incidence, pattern, seriousness, and preventability

Shadi Bamasad1, Fanak Fahimi2, Massome Karim1 1Pharmacological Care Department, Virology Research Center, National Research Institute of Tuberculosis and Lung Disease, Tehran, Islamic Republic of Iran; 2Clinical
Pre and post-test probability of VTE if negative d-dimer: VTE-risk M H pre-%, post-%; VTE-risk V-L, pre-%, post-%.

Conclusion: Prevalence of VTE in patients D-dimer tested in clinical practice is much lower than in validation studies. Both high risk and very low risk patients with alternative diagnoses are often tested. If VTE risk is very low a negative d-dimer test makes little difference to post-test probability of VTE but positive tests lead to unnecessary imaging.

P3612 Are D-dimers requested appropriately in the emergency department?

A retrospective audit
Alexia Williams, Andy Ashton. Emergency Department, Whiston Hospital, St. Helens, Merseyside, United Kingdom

Introduction: Venous thrombo-embolism (VTE) is commonly encountered in the emergency department (ED). Due to the potential severity of a missed diagnosis and the particularly varied presentation of PE, there has been an increasing reliance on D-dimers in the ED. The British Thoracic Society (BTS) suggests this is potentially leading to over-investigation of patients for possible PE (British Thoracic Society. Thorax 2003; 58: 470-484).

Aims and objectives: This audit aimed to establish whether BTS guidelines were followed when D-dimers were requested in the ED, and whether D-dimers were requested appropriately by reviewing indication for the test, co-morbidities and documented end diagnosis.

Methods: A retrospective analysis of patients with positive D-dimers performed in ED or the acute medical unit in January 2010. 147 case notes were reviewed with a view to Well’s score documentation; indication for request; further investigation for venous thrombo-embolism; end diagnosis.

Results: 90 had positive results, 47 for possible PE, 47 for possible DVT. Only two patients had a Well’s score documented at any point during their hospital admission. Although 100% patients with D-dimer performed for possible DVT had further investigation, only 51% of patients with a D-dimer requested for possible PE went on to have any further investigation for PE, leading to an end diagnosis of PE in 8.

Table 1. Clinical presentations

<table>
<thead>
<tr>
<th>Presenting complaint</th>
<th>Total (n=42)</th>
<th>PE diagnosed (n=16)</th>
<th>PE excluded (n=26)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chest Pain</td>
<td>32 (76%)</td>
<td>13 (81%)</td>
<td>19 (73%)</td>
<td></td>
</tr>
<tr>
<td>SOB</td>
<td>26 (62%)</td>
<td>10 (66%)</td>
<td>16 (61%)</td>
<td></td>
</tr>
<tr>
<td>Haemoptysis</td>
<td>3 (7%)</td>
<td>1 (6%)</td>
<td>2 (8%)</td>
<td></td>
</tr>
<tr>
<td>Leg swelling/pain</td>
<td>11 (26%)</td>
<td>5 (31%)</td>
<td>6 (23%)</td>
<td></td>
</tr>
</tbody>
</table>

Results: 16 (38%) patients were diagnosed with PE. Average time taken for PE to be diagnosed or excluded was 57 hours. There were no deaths or complications recorded from either PE or LMWH. No significant differences in clinical and physiological parameters were noted except for systolic BP (p = 0.043).

Table 2. Results

<table>
<thead>
<tr>
<th>Heart Rate</th>
<th>80</th>
<th>79</th>
<th>82</th>
<th>0.836</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systolic BP</td>
<td>136</td>
<td>130</td>
<td>141</td>
<td>0.043</td>
</tr>
<tr>
<td>Diastolic BP</td>
<td>80</td>
<td>81</td>
<td>80</td>
<td>0.717</td>
</tr>
<tr>
<td>Respiratory Rate</td>
<td>16</td>
<td>17</td>
<td>16</td>
<td>0.709</td>
</tr>
<tr>
<td>PO2 (PaO2)</td>
<td>97</td>
<td>97</td>
<td>97</td>
<td>0.646</td>
</tr>
<tr>
<td>PO2 (PaO2)</td>
<td>10.3</td>
<td>11.8</td>
<td>11.15</td>
<td></td>
</tr>
<tr>
<td>POC2 (PaK)</td>
<td>4.65</td>
<td>4.53</td>
<td>4.78</td>
<td>0.508</td>
</tr>
</tbody>
</table>

Conclusions: It’s probably safe to investigate and treat suspected PE as outpatient in selected clinically stable patients. Larger multi-centre randomised controlled trials are needed to confirm this finding.

P3615 Lung function tests in patients suffering from chronic kidney insufficiency before and after hemodialysis

Momira Obradovic1, Ljiljana Corkocić2. 1Pulmology, Hospital of Internal Medicine, Mladenovac, Serbia; 2Pulmology, Clinical Hospital Centre, Dr D. Misovic, Belgrade, Serbia

Most frequently encountered alteration of lung function in patients on hemodialysis is existence of restricted ventilation and consequently insufficiency caused by hypervolemia. Various studies examined changes in lung micro circulation that follow hemodialysis and it is argued that they may cause lung fibrosis and even calcification of alveolar septa. The objective of this study is a comparison of the relative results of pulmonary function tests before and after hemodialysis treatment.

Using Chest-microspiro H 601 apparatus, we have monitored 35 patients whose average age was 57 years. The diagnostic tools consisted of chest roentgenograms, laboratory tests, clinical examinations and pulmonary function tests (FVC, FEV1 and PEF). Our results indicate a statistically significant increase in FVC (p < 0.05) and FEV1 (p < 0.05) before and after hemodialysis.

To assess compliance and safety of our hospital pathway for out-patient management of suspected PE.

Methods: We studied a prospective cohort of patients with suspected PE managed as outpatients using LMWH from the day of presentation until either the diagnosis of PE was excluded or confirmed. We analysed patients referred to ambulatory care clinic with suspected PE from June 2009 till June 2010. 42 patients met the inclusion criteria. All patients were reviewed in clinic after a VQ scan or CTPA.

Aims: To assess compliance and safety of our hospital pathway for out-patient management of suspected PE.

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Conclusions: Patients with chronic bilateral pulmonary insufficiency have prominent fluid retention in lungs. In this situations spirometry performed before and after hemodialysis can be used as a valid diagnostic approach in determining patients conditions.

P3616 Effect of bicarbonate versus acetate hemodialysis on respiratory functions in chronic renal failure patients

Mohamed Badawy1, Ali Taha2, Nagah Mohamed3. 1Chest Department, Sohag University, Sohag Faculty of Medicine, Sohag, Egypt; 2Nephrology Department, Sohag University, Sohag Faculty of Medicine, Sohag, Egypt; 3Public Health Medicine, Sohag University, Sohag Faculty of Medicine, Sohag, Egypt

Dialysis filter can cause activation of complement and release of anaphylatoxines which can have a deteriorating effect on respiratory system. Aim of the work: To compare the effect of bicarbonate versus acetate haemodialysis on the pulmonary function test and blood gas parameters.

Material and methods: Cross sectional study of fifty chronic renal failure patients on regular haemodialysis without history of chronic pulmonary disease were randomly selected for dialysis either by bicarbonate or acetate dialysate twenty five each with same machine and duration of dialysis. Evaluation thorough medical history and determination of forced expiratory volume in the first second (FEV1), forced vital capacity (FVC), FEV1/FVC ratio, and maximal mid-expiratory flow rate (FEE 25%-75%). Arterial oxygen tension (PaO2), PH, carbon dioxide tensions (PaCO2), bicarbonate (HCO3) and potassium were analyzed with a blood gas analyzer.

Results: No significant difference in symptoms before and after dialysis in both groups. Improvement of pulmonary function test was significant in bicarbonate groups.
P3617
Pleuro-pulmonary changes in patients suffering from end-stage renal disease receiving regular hemodialysis
Rahab El Wahsh, Ali Zaki. Chest Department, Faculty of Medicine, Minoufiya University, Shebin El Kom, Minoufiya Governorate, Egypt; Internal Medicine Department, Faculty of Medicine, Minoufiya University, Shebin El Kom, Minoufiya Governorate, Egypt

Introduction: End-stage renal disease (ESRD) was defined as a life-threatening reduction in glomerular filtration rate resulting in the requirement for hemodialysis, peritoneal dialysis or renal transplantation to maintain life. Pulmonary complications are an important cause of morbidity and mortality in patients with ESRD and infection is the second leading cause of death among them.

Aim: To study pleuro-pulmonary changes and complications among patients with ESRD maintained on regular hemodialysis.

Patients and methods: The current study included 20 patients with ESRD on regular hemodialysis for at least 6 months. For every patient, clinical, laboratory, arterial blood gases, radiological study of chest and heart and spirometric study were done.

Results: Among the studied patients, 55% had pulmonary complications in the form of pulmonary infections, pleural effusion, pulmonary edema or hypoxemia during the course of hemodialysis. Spirometric measures, before and after hemodialysis, showed no significant improvement of VC, FVC, FEV1/FVC or MMV, whereas improvement in FEF25-75% and PEFR was significant. Significant hypoxemia occurred during hemodialysis. Significant improvement in pH, PaCO2 and HCO3 occurred during and after hemodialysis.

Conclusion: Patients with ESRD treated with hemodialysis must be considered at high risk for the development of lethal pulmonary complications. Regular hemodialysis improves arterial blood gases parameters and some pulmonary function measurements.

P3618
Morphological features of the endobronchial microcirculation of nephrological patients
Shcherban Natalia1, Landshev Yuriy2, Tsheluyko Sergey3. 1Pulmonology, Saint-Petersburg State Pavlov Medical University, Saint-Petersburg, Russian Federation; 2Pulmonology, Amur State Medical Academy, Blagoveschensk, Russian Federation; 3Histology, Amur State Medical Academy, Blagoveschensk, Russian Federation

Pneumofibrosis is one of the respiratory aftereffects developing at late stages of chronic kidney disease (CKD).

The research was aimed at revealing the microhematicmiculatory disturbances role in the course of bronchopulmonary aftereffects development for CKD patients.

Methods: The endobronchial biopsy was applied to 48 CKD patients at the point of 1cm distally aside from the right lung’s proximal bronchus spur. The ultrathin sections were analyzed, using the Tecnai G2 Spirit TWIN electron microscope (of the “FEI Company” - Netherlands) after its preliminary staining by the uranyl acetate and the lead citrate.

Results: The normal plan of bronchi mucosa structure is revealed in 16,6% of cases, mainly at CKD initial stages. 25,4% of CKD 2nd and 3rd stage patients had epithelium initial planocellular metaplasia, sometimes with the bronchi submucosa connective tissue edema. In 50% of the cases dystrophy and epithelium metaplasia combined with the microcirculatory bed reduction. At the later stages of the disease the number of the elastic fibers increased which surrounded the spasmogenic blood capillaries and dilated venules. 19,4% of the patients at the fifth CKD stage showed atrophy of the epithelium against the expressed submucosa sclerotic changes. Here one could observe distinct damages of endothelial cells containing numerous vacuoles in the cytoplasm, sometimes they protruded into the vessel lumen.

The conclusion: Due to various factors the CKD leads to the structural reorganization of the microhemocirculatory bed which then causes the fabric hypoxia, atrophy of the bronchus mucosa and occurrence of the expressed sclerotic processes in the submucosal layer of the bronchial tree.

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Bronchiolitis obliterans as a first manifestation of rheumatoid arthritis – Case report
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Introduction: Rheumatoid arthritis (RA) is the most common connective tissue disease associated with bronchiolitis obliterans (OB). OB is a clinicopathologic entity of bronchial inflammation which reflects the injury of the small airways and presents symptoms and signs of small airways obstruction. OB can go as a first manifestation of RA in 10–20% of patients.

Case presentation: A 37-year-old woman, non-smoker presented to our clinic accusing: MRC III dyspnea and bronchorrhea and suddenly it developed an obstructive lung disease without any reasonable explanation. Clinical, physiological and radiologic features suggested OB (squeaks and crackles on auscultation, functional evidence of OB). HRCT scan features consisted mostly of indirect signs of bronchiolitis, with a mosaic pattern reflecting air trapping, bronchial wall thickening, centrallobular emphysema,areas of ground-glass attenuation. She also had extra-respiratory symptoms—asthma and weight loss (5 percent in 2 months). 3 months after, she developed seropositive RA and a elevate serum rheumatoid factor was found, but with no clinical evidence of active rheumatological disease. All of these findings suggests that the OB was secondary to a rheumatoid process. Oral corticosteroids, associated with immunosuppressive treatment and inhaled bronchodilators was initiated, but without any clinical and functional improvement.

Conclusions: This case is atypical since usually the diagnosis of RA precedes respiratory symptoms in 88% of cases. In our patient the bronchiolitis obliterans was the initial manifestation of rheumatoid arthritis, attributable to rheumatoid arthritis.