85. Respiratory manifestations of systemic disease: a holistic approach

P580

Pleural effusion in hemodialysis patients with chronic kidney disease

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Background: Uremic patients are susceptible to many causes of pleural effusions. Moreover, uremia directly creates a kind of exudative pleural effusion. Uremic pleuritis has been introduced as a clinicipathologic entity for the past four decades. However, knowledge of pathogenesis, clinical course and management of this complication is still limited.
Materials and methods: In this study, 76 chronic hemodialysis patients with pleural effusion admitted in hospital between June 2005 and May 2011, and evaluated for the etiology of pleural effusion and associated clinicopathological findings. Statistical tests of Chi square, ANOVA and Kruskal Wallis were used to compare patient's data with the most common etiologies of pleural effusion.
Results: Parapneumonic effusion (23.7%), uremic pleuritis (23.7%) CHF (19.7%) volume overload (6.6%) tuberculosis (6.6%) and malignancy (5.4%) were the most common causes of pleural effusion. There was not any significant difference in the frequency of presenting symptoms such as; Dyspnea, cough, weight loss, anorexia, chest pain and fever, in patients with CHF and uremic pleuritis. Moreover, pleural Adenosine Deaminase levels were not different in patients with tuberculosis, uremic pleuritis, parapneumonic effusion and CHF.
Conclusion: Infectious disease including parapneumonic effusion and tuberculosis can be the most common causes of pleural effusion in hemodialysis patients. This study showed that some inflammatory pleural reactions such as increase in pleural leukocyte count and ADA may be attenuated in hemodialysis patients.

P581

The prevalence of pulmonary hypertension and the related factors in hemodialysis patients

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Background and purpose: Pulmonary hypertension (PH) has been reported in hemodialysis patients, but there are scant studies about its prevalence and mechanisms. The aim of this study was to determine the prevalence of pulmonary hypertension in hemodialysis patients and to study some of its possible etiologic factors.
Materials and methods: In this cross-sectional study, the prevalence of pulmonary hypertension was determined by Doppler echocardiogram in 100 patients on hemodialysis via arteriovenous fistula at least for 6 months. All the patients underwent a thorough clinical evaluation. The laboratory findings including mean of three-month hemoglobin and serum level of calcium, phosphorus, albumin, alkaline phosphatase, parathormone (PTH), triglyceride and cholesterol were all recorded. Pulmonary hypertension was defined as systolic pulmonary artery pressure higher than 35 mmHg.
Results: Pulmonary hypertension was detected in 44 patients (44%) with a mean

systolic pulmonary artery pressure of 52.09±7.33 mmHg. No significant differences were found between those with and without pulmonary hypertension with regard to age, gender, duration of hemodialysis and all the biological parameters.

Pulmonary hypertention in CRF patient

M±SD	Number	Group
52.09±7.33	44	SPAP>35
30.91 ±3.98	56	SPAP<35
38.12±6.17	100	Total

Conclusion: This study demonstrates a high prevalence of pulmonary hypertension among patients receiving chronic hemodialysis via arteriovenous fistula.

P582

Prevalence of pulmonary hypertension in patients undergo hemodialysis

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Introduction: Pulmonary hypertension (PH) is one of most important untoward effects of hemodialysis in end stage renal disease (ESRD) patients. Prevelance of hemodialysis-induced pulmonary hypertension is still a subject of debate. The goal of the present work was to determine prevalence of PH in patients who undergo hemodialysis.
Methods: This study was done in hemodialysis ward of Tehran Labbafi Nejad hospital. During 2010, 400 ESRD patients who underwent hemodialysis for at least six months were studied. The exclusion criteria were as follows: cardiac disease with effect on pulmonary artery pressure, pulmonary disease (e.g. COPD), smoking and using calcium channel blockers. Baseline and clinical characteristics of subjects were recorded. Pulmonary pressure was measured by cardiologist using echo cardiography. Pulmonary artery pressure (PAP) higher than 35 mmHg was considered pulmonary hypertension.
Results: Results are presented in mean ± SD. 53% of patients were male and mean was 59±18 yr. The most common cause of ESRD was diabetes mellitus (35%). Duration of hemodialysis was 24±17 months. None of the patients had previous history of kidney transplantation. Mean of Ejection fraction and PAP were 57±5% (44-73) and 39±9 (25-70) mmHg, respectively. 66% patients had pulmonary hypertension. All of them had long duration of dialysis and low EF (56±5%) (P<0.008). They were older than other subjects (63±16). No significant difference was observed about causes of renal diseases, gender and drugs.
Conclusion: Our findings show that PAP is associated with duration of dialysis, age and EF. Due to high prevalence of pulmonary hypertension, it is necessary to screen this disorder and diminish its untoward effects.

P583

Pleural effusion in chronic kidney disease: An ongoing dilemma

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Background: Pleural effusion among patients of chronic kidney diseases (CKD) is an ongoing dilemma to nephrologists and pulmonologists especially in developing countries where tuberculosis is a common cause of pleural effusion. While uremic effusion is a diagnosis of exclusion, the sensitivity and specificity of various modalities of diagnosis of tuberculous effusion vary.
Methods: A prospective cross-sectional observational study of all adult patients of pleural effusion with either CKD (stages 3 to 5) or renal transplant attending a tertiary-care institute in eastern India was performed over a year. An analysis of the etiological profile, clinical characteristics and treatment modalities of pleural effusion in CKD was carried out.
Results: 430 CKD (stages 3 to 5) patients and 34 post renal transplant patients were evaluated during the study period. Incidence of pleural effusion was 6.74% (29/430) in CKD patients and 5.88% (2/34) in post transplant patients. Exudative effusion was slightly more predominant (51.6%, 16 of 31) but heart failure remained the single most common etiology (41.9%, 13 of 31).Tuberculosis (n=8, 25.8%) and uremic effusion (n=6, 19.4%) were responsible for the majority of exudative effusions,followed by empyema (n=2).
Conclusion: Symptomatic pleural effusion was present in 6.74% patients of CKD (stages 3 to5) and in 5.88% of post transplant patients. Heart failure, tuberculosis and uremic effusion accounted for 41.9%, 25.5% and 19.4% cases respectively. Differentiating tuberculosis from uremic effusion requires a combined clinicopathological approach and this differentiation is absolutely necessary in view of its strong therapeutic implications.

P584

Predictors of pulmonary artery hypertension in patients with systemic sclerosis

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Introduction: Pulmonary Arterial Hypertension (PAH) is the leading cause of death in patients with systemic sclerosis[1]
Newer treatment modalities have improved the outcome; hence the early identification of this complication is important.
Aim: To study the predictors of PAH in patients with Systemic Sclerosis who attended the out patient service of Pulmonary Medicine, Medical College, Kottayam.
Methods: We studied 28 cases of systemic sclerosis.18 patients had diffuse form, 8 had overlap syndrome and 2 had limited form of the disease.
All patients were evaluated by spirometry, DLCO, HRCT of the lungs, and echocardiography examination.
They were grouped to different forms by clinical examination and by antibody detection. Statistical study was done using independent t test and chi-square test.
Results: All 28 patients were females. Among the diffuse form 13 patients (72%) had interstitial lung disease (ILD) and 6 patients (33%) had PAH
Among patients with overlap syndrome (including PSS) 5 had ILD (63%) and 3 had PAH (38%).
No patient with limited form had ILD, but all the two had PAH (100%).
Among 18 diffuse form 6 patients had PAH and their mean FVC is 52.6% and DLCO of 29%.
Patients without PAH had a mean FVC of 53.0% and a mean DLCO of 46%.
Conclusions: Higher prevalence of PAH was observed in patients with limited variety when compared with diffuse form and overlap syndrome.
In diffuse form PAH was associated with ILD and no such association was found in limited variety.
A decreasing DLCO is an excellent predictor of the development of PAH in diffuse Systemic sclerosis[2].
References:
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P585

Respiratory problems in late onset Pompe disease

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Introduction: Pompe disease (glycogen storage disorder type II) is associated with functional deficiencies in skeletal, heart and respiratory muscles due to glycogen deposition. While progression and mortality rates are fast in early onset (first year) Pompe disease, late onset (adult) Pompe disease is related with slow progression and proximal myopathy. In this disease respiratory muscle involvement is independent from severity of skeletal muscle weakness. Here, we present the respiratory evaluation of 10 patients with Pompe disease who are followed up in our clinic.

Table 1. Characteristics ot the patients

Patient No.	Age/ Gender	Sitting FVC	Supine FVC	FVC difference	PIM/PEM	PaO2/PaCO2	AHI/MT CO2
1	59/M	52%	37%	–28%	38/54	85/37	44
2	59/F	94%	91%	–3%	51/65	72/44	<5/47
3	61/F	77%	53%	–31%	34/43	75/45	<5/47
4	58/F	50%	37%	–26%	53/59	72/49	<5/51
5	57/F	59%	25%	–57%	28/30	84/39	<5/53
6	19/F	90%	90%	–1%	51/51	88/39	(–)
7	53/F	90%	(–)	(–)	(–)	(–)	(–)
8	46/M	86%	86%		112/126	80/38	13
9	53/F	T	T	T	T	78/44	(–)/62
10	44/F	56%	(–)	(–)	(–)	95/42	34

D: Dyspnea, T: Tracheostomy, AHI: Apnea hyponea index, M: Morning time, PIM: Maximal Inspiratory Pressure, PEM: Maximal Expiratory Pressure.

Conclusion: Respiratory muscle involvement especially diaphragm muscle dysfunction and respiratory disorders in sleep are common in late onset Pompe disease even the respiratory symptoms are recessive.

P586

Ankylosing spondylitis: Pulmonary manifestations

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In present study we aimed to assess the spirometric and pulmonary radiological findings of the patients with ankylosing spondylitis.

Methods: 35 outpatientswith ankylosing spondylitis were evaluated in terms of demographic characteristics, smoking status, tuberculosis history, respiratory symptoms, HLA B27 status, activity of illness.X ray, HRCT, spirometry,body plethismography and DLCO tests were evaluated.
Results: The characteristics of all the subjects are shown in Table 1.

Table 1. The characteristics of all the subjects

Sex	31 man, 4 women
Age	39.8±5.9
BMI	27.8±3.8
Duration of Ilness	11.18±6.4
Smoking history	23 smoker, 12 nonsmoker
TB history	21 patients had no TB history,11 unknown
HLA B27	5 negative, 16 Positive, 13 unknown

Chest X ray was normal at 24 patients (% 68,6) and abnormal at 8 (%22.9) patients. The HRCT findings of all the subjects are shown in Table 2.

Table 2. HRCT findings

	Number	Percent
Normal	15	42.9
Bilateral apical pleuroparanchimal lesions	7	20
Upper lobe fibrosis	2	5.7
Groundglass atenuation	1	2.9
Nonspesific interstitiel lesions	2	5.7
Nodular density	1	2.9
Nonspesific interstitiel lesions+nodular density	1	2.9
Fibrotic pleuroparanchimal lesions + nodular density	3	8.6
Total	32	91.4
Missing	3	8.6
Total	35	100

Lung Volumes were normal at 20 (%57,1) patients, abnormal at 3 (%8,6) patients. DLCO were normal at 16 (%45,7) patients, abnormal at 10 (%28,6) patients. PI max and PE max were normal at 17 (%48,6) patients, abnormal 13 (%37,1) patients.
Conclusion: Disease activity determined by BASDAI Index has no significant correlation with chest Expansion and value of PI max-PE max (p=0.388). There is no significant correlations between chest expansion and normal or reduced intrathoracal pressures (p= 0.509).

P587
Diffuse aspiration bronchiolitis diagnosed on transbronchial lung biopsy in a case of thymoma with dysphagia
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Background: Diffuse aspiration bronchiolitis (DAB) is a form of aspiration related lung disease and has unique clinico-radio-pathologic features. It has heretofore been reported on autopsy or surgical biopsies. We report a case of DAB diagnosed on trans-bronchial lung biopsy (TBLB).
Case: A 72 year old previously healthy male, smoker (150 pack-years) presented with hoarseness of voice and vertigo for 4 months, dysphagia and swelling in the neck for 1 month. Examination revealed a firm, non tender swelling in the right side of the neck and signs of Horner's syndrome. PET-scan showed a FDG avid mass in the right side of the neck, extending into the superior mediastinum, encasing the trachea, abutting and displacing the esophagus to the left and normal lung parenchyma. A CT-guided transthoracic percutaneous biopsy of the mass revealed an immature lymphocyte rich thymoma. Patient developed sudden breathlessness, after 3 weeks from the start of radiotherapy. A CT-pulmonary angiography was negative for pulmonary embolism. HRCT showed bilateral disseminated centrilobular nodules with 'tree-in-bud' appearance suggestive of diffuse bronchiolitis. A TBLB revealed necrotising alveolitis with foreign body giant cells containing refractile material, suggestive of aspiration. A final diagnosis of DAB/aspiration alveolitis secondary to occult chronic aspiration was made. Patient improved on nasogastric feed and treatment with clidamycin. A repeat CT-thorax after 2 months showed normal lung parenchyma.
Conclusion: DAB is an underrecognised, yet an important differential diagnosis, which should be considered in any patient having risk of aspiration and a HRCT showing diffuse bronchiolitis.

P588
Evaluation of pulmonary function and functional capacity in patients with liver cirrhosis
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Background: Various changes can be detected by pulmonary function tests in patients diagnosed with chronic hepatic diseases. These changes characterize the hepatopulmonary syndrome result in hypoxemia and affect one-third of all patients diagnosed with cirrhosis.
The aim of this study was to evaluate and compare the pulmonary function and functional capacity in patients with liver cirrhosis according to the Child-Pugh score and to correlate these variables within each group.
Methods: 40 patients with liver cirrhosis were enrolled into the study. Spirometry (FEV1, FVC, FEV1/FVC), hemoglobin levels, dyspnoea by BORG scale, exercise capacity by 6-min walking test (6MWT), blood gas analysis were evaluated. Blood gases were measured in supine and sitting positions.
Results: The patients were classified into three groups, according to cirrhotic severity, using Childs-Pugh classification (A - 7 patients; B - 24 patients; C - 9 patients). There were significant differences ($p<0.01$, ANOVA) in FEV1 between 3 groups: there was observed a decrease of pulmonary function with progression of cirrhosis from 107±13.1% in group Childs-Pugh A to 89±17.4% in group Childs-Pugh C. Also there was detected a diminution of PaO2 in supine and sitting positions with progression of cirrhosis. The longest 6MWD was 435±17.8 m by group A, then group B (354.6±43.4 m), and group C (310±63.6 m). There was a strong negative correlation between 6MWD and Child-Pugh classification ($r=-0.55$, $p<0.01$).
Conclusion: The progress of liver disease contributes to the onset of several complications which together appear to contribute to the reduction of pulmonary function and functional capacity of patients.

P589
Assessment of dyspnoea in patients with liver cirrhosis
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Background: Pulmonary involvement is a common complication of liver cirrhosis, mainly owing to a decreased hepatic clearance of toxins or increased hepatic production of circulating inflammatory mediators. The connection between the severity of lung manifestations and liver impairment is not well characterized.
The aim of this study was to evaluate and detect predictors of dyspnoea in patients with liver cirrhosis according to the Child-Pugh score.
Methods: 40 patients with liver cirrhosis were enrolled into the study. Spirometry (FEV1, FVC, FEV1/FVC), hemoglobin levels, dyspnoea by BORG scale, exercise capacity by 6-min walking test (6MWT), blood gas analysis were evaluated.
Results: The patients were classified into three groups, according to cirrhotic severity, using Child's-Pugh classification: A - 7 patients; B - 24 patients; C - 9 patients. There were significant differences ($p < 0.01$, ANOVA) in dyspnoea assessed by BORG scale between 3 groups: there was demonstrated the increase of dyspnoea with progression of cirrhosis from 0.7±1.9 points in group Child's-Pugh A to 2.4±1.9 points in group Child's-Pugh C. Dyspnoea correlated better with 6-minute walking distance ($r = 0.67$, $p = 0.001$) in cirrhotic patients. Also a significant positive correlation between dyspnoea and Child's-Pugh classification ($r = 0.60$, $p = 0.01$) was demonstrated. The forward stepwise regression analysis shows that the stage of cirrhosis and level of hemoglobin are important predictors of dyspnoea in patients with liver cirrhosis which explains 60% of the dyspnoea.
Conclusion: The Child's-Pugh stage of cirrhosis and level of hemoglobin in patients with liver cirrhosis are independent risk factors for worsening of dyspnoea.

P590
Evaluating airway obstruction in patients admitted to general medicine wards by bedside spirometry
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Study objectives: Airway obstruction is found to coexist with other medical conditions. This study attempts to assess airway obstruction in patients admitted in general medicine wards.
Methods: A cross-sectional study of 52 patients admitted to medicine ward of a tertiary hospital was carried out. Bed-side spirometry was performed in each of these patients after taking consent and recording a detailed history.
Results: A remarkable 52% of the patients were found to have airway obstruction (FEV1/FVC<70%) on performing spirometry, including 11.5% with very severe (FEV1< 30% predicted), 17.3% with severe (FEV1 30%-49%), 11.5% with moderate (FEV1 50%-69%) and 9.6% with mild (FEV1>70%) obstruction respectively. A diagnosis of obstructive airway disease was present only in 26% of these patients at the time of admission. A considerably higher prevalence of airway obstruction than average was observed in patients admitted for respiratory (70%), cardiac (62.5%) and neurological (58.8%) disorders, while a lower prevalence was seen in those with nephrological (40%), haematological (0%) or other (22.2%) conditions. No patient was additionally diagnosed with airway obstruction during the hospital stay and only 26% of patients with airway obstruction received bronchodilator therapy.
Conclusions: Airway obstruction co-existing with other medical condition stays grossly under-diagnosed. A routine bed-side spirometry performed on hospitalized patients could be a useful tool for detecting and treating airway obstruction.

P591

Is it GER? Different diagnostic approaches for detection of gastroesophageal reflux in patients with chronic cough

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Background: Gastroesophageal reflux (GER) is a common cause of chronic cough. Different methods can be used to detect it. The limited accessibility of some devices or difficulties in assessment of relationship between GER and cough may influence their practical usefulness.
Objectives: To assess the utility of different methods in the diagnosis of GER in patients with chronic cough.
Methods: We included 60 consequent, nonsmoking, adult patients, with history of cough longer than 8 weeks, with normal chest radiograph. We used the Carlsson questionnaire (CQ), assessment of abnormalities in larynx mucosa (Belafsky reflux finding score, RFS), upper gastrointestinal tract radiography, 24-hour-pH monitoring and multichannel impedance (MI) of esophagus.
Results: Sixty patients were included (M/F =1:1.86), mean age 48.8 yrs, mean cough duration 260 weeks (range 16-1440). Sixteen subjects were excluded from further studies due to consent withdrawal or technical problems with pH probe insertion. Positive results of CQ and RFS were observed in 13 and 50/54 cases respectively. Mean calculated RFS was 11.7 points. Esophageal hernia or reflux during radiography was shown in 6 and 7/54 pts, respectively. Increased esophagus exposure to acid reflux was diagnosed in 43/58 pts using pH monitoring alone, and in 37/44 on the basis of MI. Time-relationship between GER and cough was found in 23 and 21 cases, respectively. MI probe was slightly worse tolerated.
Conclusions: Diagnosis of GER was most frequent on the basis of RFS and MI. Combination of few methods allows to recognize GER more precisely. The time relationship between GER and cough, can be assessed not by all devices used.

P592

Platypnea-orthodeoxia syndrome precipitated by kypho-scoliosis: An unusual case of refractory hypoxia

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Introduction: Platypnea-Orthodeoxia syndrome is caused by intra-cardiac, pulmomary arteriovenous or pulmonary parenchymal shunt. It's first clinical manifestation in an elderly lady as a result of 'unmasking' of a patent foramen ovale (PFO) attributable to her worsening kypho-scoliosis is a novel and poorly understood presentation.
Case Summary: An 85 year old lady presented with breathlessness and hypoxia ($PaO_2$5.6kPa, $PaCO_2$5.2kPa, pH7.4).Clinical examination was normal apart from marked kypho-scoliosis. Her ECG, chest X-ray, High resolution chest CT, CT pulmonary Angiogram, Ventilation/Perfusion scans and Trans-thoracic ECHO were all within normal limits. In particular, she had normal pulmonary pressures. Her lung functions demonstrated a restrictive defect with a normal single-breath diffusion capacity of carbon monoxide. She subsequently exhibited orthodeoxia prompting a 'bubble' ECHO study. This revealed a large PFO with a prominent 'right to left' shunt, confirmed on Trans-oesophageal ECHO. Percutaneous transcathetar closure of the PFO returned her oxygen saturation to within normal limits enabling rehabilitation.
Discussion: Symptomatic Platpynea-Orthodeoxia syndrome without pulmonary hypertension can be caused by altered intra-thoracic anatomy and physiology. It is postulated that kyphoscoliosis resulting in right atrial compression and alteration to caval flow may result in 'right to left' shunt unmasking a 'silent' PFO. PFO's, occurring in 10-20% of adults, are largely asymptomatic. However, with a growing geriatric population and increasing incidence of spinal deformities such curable possibilities must be included in differentials of otherwise unexplained hypoxia.

P593

Pulmonary complications in patients with hematologic diseases

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Patients with hematologic diseases may complicate with various respiratory diseases, such as infections, lung involvement of hematologic diseases, alveolar hemorrhage, and drug-induced pneumonitis. The aim of this study is to clarify the recent incidence and the risk factor for pulmonary complications in patients with hematologic diseases. Medical records and chest computed tomography of patients with hematologic diseases, who were admitted to our university hospital during 2010-2011, were reviewed and analyzed retrospectively by hematologists and pulmonologists. Diagnosis of respiratory complications was confirmed by pulmonologists. One hundred sixty six patients with hematologic diseases were admitted mainly for chemotherapy of malignant lymphoma (51.2%), multiple myeloma (17.5%), and leukemia (15.7%). Forty six patients (27.7%) suffered from pneumonia (27 cases, 51.9%), pleural effusion (8 cases, 15.4%), drug-induced pneumonitis (3 cases, 5.7%), acute respiratory distress syndrome (ARDS, 2 cases, 3.8%), alveolar hemorrhage (2 cases, 3.8%), and/or others (10 cases, 19.2%). Six patients (3.6%) were deceased because of respiratory complications (3 cases with pneumonia, 2 cases with ARDS, and a case with alveolar hemorrhage). Pulmonary complications developed significantly higher in current or recent smokers than never smokers. Pulmonary complications in hematologic diseases may be decreased by recent introduction of prophylaxis for infections, but are still important in the management of hematologic diseases. Smoking status may be related to the development of pulmonary complications during treatment of hematologic diseases.

P594

Tracheobronchopathia osteochondroplastica – Analysis of 10 years period

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Background: Tracheobronchopathia osteochondroplastica (TO) is a pulmonary orphan disease and consists at the presence of multiple osseous or cartilaginous nodules localised in the submucosa of the tracheobronchial wall. These nodules protrude into the lumen of the trachea and the large bronchi, leading to the airway obstruction.The disease does not involve other organs.
Method: We studied in retrospective all cases of TO diagnosed with fiberoptic bronchoscopy for the period 2001 - 2011. In our hospital we realise aproximately 1200 bronchocopies per year.
Results: We found 17 cases, 52% were female and 48% male. The average age was 40.6 years, 42% were smokers (~40 UPA) without family history for TO. The duration of symptoms till the diagnostic was 2.3 years. The most frequent symptoms were: cough 100%, sputum 64%, dyspnea 41%, haemoptisis 5%, and erythema nodosa 5%. The laboratory findings demonstrate an increase of sediment in 58% of cases, 11% leucocytosis and all the others were normal. Proteus mirabilis was the most frequent microbiological strain (17%). Functional respiratory tests resulted: 35% obstruction, 11% restriction, 5% mixed and 17% normal. The bronchial biopsy demonstrated epithelial displasia and fibrosis stroma with inflammatory elements. One case was accompanied with bronchial cancer. The treatment was with antibiotics and symptomatic.
We didn't have the possibility to realize FBS reevaluation for judging the disease's evolution.
Conclusions: TO present frequently with chronic or acute non specific respiratory symptoms, but with pathognomonic characteristic features in FBS. Thoracic CT scanner is a non invasive diagnostic method. The treatment is symptomatic.

P595

Comorbidities in 1779 sarcoidosis patients – 4 years experience in National Tuberculosis and Lung Diseases Research Institute in Warsaw, Poland

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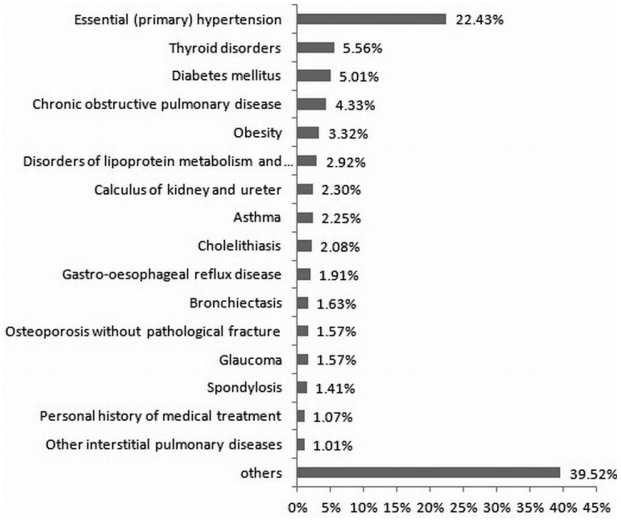
Sarcoidosis is a systemic granulomatous disease. However the changes in the respiratory tract are most common, granulomas can involve any other organs. Other comorbidities may affect the course of disease and additionally impair quality of life. The aim of study was to evaluate the incidence of comorbidities and its relationship with extent of disease in a large group of sarcoidosis patients diagnosed or followed up in National TB & Lung Diseases Research Institute in Warsaw.
Method: Retrospective analysis of database patients discharged with the final diagnosis "sarcoidosis" (ICD-10: D86) and assessment of additional diagnoses reported at the time of discharge. The analysis covered the period from 01'2008 to 10'2011.



Results: 1779 sarcoidosis patients were hospitalized during almost four years. Majority (79.2%) were diagnosed as pulmonary and/or lymph node sarcoidosis (D86.0, D86.1, D86.2). Sarcoidosis of other and combined sites (D86.8) were diagnosed in 15.8% and unspecified sarcoidosis (D86.9) in 5.0% of patients. At least one comorbidity was noted in 54% of patients. The most frequent reported comorbidities are presented in figure below.
Using linear regression models the association between the number of comorbidities and age and extent of the disease were found ($p<0.001$).
Conclusion: Comorbidities in sarcoidosis patients are more frequent in multiorgan disease.

P596
Pulmonary alveolar proteinosis due to mycophenolate and cyclosporine combination therapy in a renal transplant recipient
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Since the first case of Pulmonary Alveolar Proteinosis (PAP) was described in 1858 about 500 cases have been reported. We describe a case of PAP occurring in a renal transplant recipient due to mycophenolate and cyclosporine combination therapy.
Five years ago, a diagnosis of acute-on-chronic kidney disease was made in a 36 year old woman who eventually underwent renal transplantation then triple-drug immunosuppression. Subsequently she was in maintenance regimen with mycophenolate and cyclosporine. Several years ago, she had been treated for tuberculosis of the cervical lymph nodes. Chest X-ray showed a bilateral perihilar infiltrate sparing the costophrenic angles (Figure 1). CT-scan showed bilateral diffuse ground-glass haziness with superimposed interlobular septal thickening, predominantly in the perihilar areas (Figure 2).

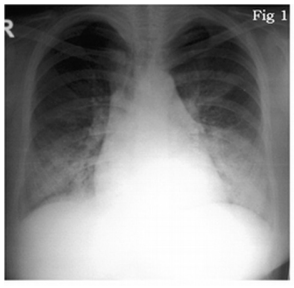
Fig 1

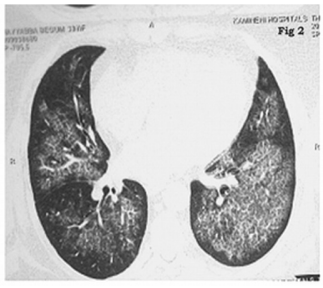
Fig 2

Transbronchial lung biopsies showed dilated alveoli filled with PAS-positive granular eosinophiic material with deeply eosinophilic structures, resistant to decolorization with diastase, consistent with alveolar proteinosis. The appearance of the symptoms after a few months of the commencement of immunotherapy suggested causality.
Immunosuppressive agents are capable of decreasing macrophage numbers and use of these agents in the post renal- transplant patient has been known to produce PAP. This patient was prescribed a combination of mycophenolate and cyclosporine.

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Effect of respiratory pathology on the quality of life for patients, suffering from rheumatoid arthritis
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Aim: To study the influence of pulmonary pathology on the quality of life (QoL) in patients suffering with rheumatoid arthritis (RA).
Methods: 58 patients with RA (42 women, middle age 57,1±3,17) were investigated by routine, clinical, functional tests and were divided into 2 groups:1'st – 31 patients who had the respiratory discomfort (breathlessness, cough) and 27 patients without respiratory symptoms (and any disturbanses of the function of external breathing). Spirometry, saturation, weakness of respiratory muscles, multispiral CT-scan were used for assessing of clinical and functional parameters of respiratory status and St. George Respiratory Questionaire (SGRQ) for assessing QoL.
Results: Significant decreasing of the QoL for patients with RA in comparison with patients of the control group and the general population: the low level of QoL was registered in all scales in the patients of the 1-st group - (Symptoms 68,8±4,41, Activity - 60,21±3,45, Conseqences - 63,42±4,11, total score was correspondently decreased: 49,54±2,12. Primary reason of lowering indexes of the SGRQ in patients with RA was a dyspnea. Established multifactor origin of dyspnea in patients with RA upon significant role of lung pathology, which registered in RA-patients.
Conclusions: Pulmonary pathology shows unpleasant effect on QoL and level of general health of patient with RA, significantly decreased them. The perspective direction for increasing the QoL for patients with RA with pulmonary pathology depends on saving the respiratory function of lungs, adequate control of the activity of the RA, correction of violations of psychoemotional disorders and depressive level of patients.

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Venous thromboembolic disease and bronchial cancer
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Venous thromboembolic disease (VTED), defined by the occurrence of a deep thrombosis and/or lung embolism. It is a frequent complication of cancer, particularly during chemotherapy. On average, it occurs with 15 to 20% of the patients, and is one of the main causes of death (one hospitalized cancer patient out of seven).
We have retrospectively evaluated the occurrence of VTED in 139 bronchial cancer patients treated at the pneumology service of CHU Bab El Oued over a twelve-month duration. The incidence was of 8.6% (twelve cases out of 139), 50% of the VTED were present at the time of diagnosis and 50% appeared during the three following months. Among the twelve VTED diagnosed cases (three women and nine men), we found a predominance of the adenocarcinoma type (41.66%). All cases were stage III and IV and had received chemotherapy, with complementary surgical treatment for two patients. The twelve VTED cases had received an anticoagulant treatment with six deaths occurring after six months of treatment, three recoveries and three patients still under anticoagulants.
In conclusion: bronchial cancer predisposes the occurrence of a venous thromboembolic event which, once associated to neoplasia, is a factor of high mortality risk. VTED is more frequent with advanced stages bronchial cancer patients, in adenocarcinoma and with patients under chemotherapy. Response to anticoagulant treatment is uncertain and death can occur after stopping the treatment, which justifies discussing the continuance of anticoagulants, and sometimes even their prescription as preventive treatment.

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Nutritional status in patients with bronchiectasis
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Introduction: The association between nutritional depletion and chronic respiratory diseases has been recognised for years and mainly documented in chronic obstructive pulmonary disease. However little information is available regarding nutritional depletion in patients with bronchiectasis.
Aims of the study: This study was carried out to determine the nutritional status in patients with bronchiectasis and the relationship between the extent of these bronchiectasis on the C-T scan and nutritional depletion.
Methods: In 45 patients with bronchiectasis, body mass index (BMI), serum albumin, C-reactive protein and spirometry were recorded.
Results: BMI was <20 kg/m^2 in 17% of patients and serum albumin was <35g/l in 15% of patients. C-reactive protein was >6mg/l in 80% and were higher essentially in patients who had more than one pulmonary lobe affected by bronchiectasis. BMI was not correlated to the extent of bronchiectasis, but serum albumin was correlated with p=0,02. BMI and serum albumin were not correlated with Post-bronchodilator FEV1 and long-term oxygen therapy.
Conclusion: Malnutrition is coming to be highly prevalent in patients with bronchiectasis. Assessing this nutritional depletion may be offers benefits to patients with bronchiectasis.