
31. Lung cancer, haemoptoe, smoking and COPD

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Treatment success and survey in pleurodesis cases

Ufuk Memis¹, Gulfer Okumus¹, Esen Kiyani¹, Ziya Gulbaran¹, Halim Issever², Orhan Arseven¹. ¹*Pulmonary Medicine, Istanbul Medical Faculty, Istanbul, Turkey;* ²*Public Health, Istanbul Medical Faculty, Istanbul, Turkey*

Background: Pleurodesis is a procedure designed for the symptomatic treatment for recurrent pneumothorax, malign and benign effusions. Sclerosing agents are

given into the pleural cavity. Factors such as type of sclerosing agent, primary diagnosis and daily drainage affect the success.

Aim and Methods: Twenty-nine cases of pleurodesis between January of 2000 and December of 2005 were evaluated retrospectively to determine the success rate and factors that are affecting the success of the procedure. Seventeen patients were male and 12 were female. Mean age was 67.7 ± 12.7 years. Mann-Whitney U and Kaplan Meier tests were used for statistical analysis.

Results: Pleurodesis performed for malignant pleural effusion in 25 cases (11 adenocarcinoma, 8 breast cancer and 10 other malignities), in two cases for benign effusion and in two cases for recurrent pneumothorax. Daily mean drainage was 388 ± 177 ml and sterile talc was the most frequently used agent (79.3%). Pleurodesis was successful in 25 cases (86.2%). Daily drainage was higher in unsuccessful cases but the difference was not significant. In the follow up period, pleural effusion recurred only in three of 25 cases ($p=0.04$). Survival after the procedure was 83% for 150 days and 36% for 1 year.

Conclusion: In this study; no relationship was found between the success of pleurodesis and the type of cancer, daily drainage and the sclerosing agent.

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Lung cancer in a series of chronic obstructive pulmonary diseases patients from Rio de Janeiro, Brazil

Morriss C. Kaiserman. ⁷² *Enfermaria - Hospital Geral da Santa Casa de Misericórdia do RJ, Escola de Medicina Souza Marques, Rio de Janeiro, RJ, Brazil*

Background: Chronic obstructive pulmonary disease (COPD) is now one of the main causes of death in several countries and lung cancer (LC) is the main cause of death by cancer throughout the world. The two conditions are strongly associated to smoking, however there are few studies describing the prevalence of LC in COPD patients. Most series describe the prevalence of COPD in LC patients, and results vary widely, depending on the population studied.

Objective: To verify the prevalence of LC in a series of COPD patients from Rio de Janeiro.

Methods: Subjects were consecutive COPD patients evaluated in a respiratory care clinic. Clinical characteristics were compared. COPD diagnosis followed the GOLD criteria.

Results: From May 2005 to January 2006, 55 COPD patients (35 males, 63.6%) were evaluated, of whom six (10.9%) had LC (4 adenocarcinoma, 2 squamous). The mean smoking history was higher in LC patients (88.9×58.9 pack/years; $p=0.064$). There were no significant differences in clinical or spirometric parameters among patients with and without LC.

Discussion: Although it is very likely that patients who smoke and have lung cancer previously have some degree of COPD, a PubMed search covering the last five years only found series describing the prevalence of COPD in LC patients. There were no recent study in the English language describing the prevalence of LC in COPD patients.

Conclusion: In this series, the prevalence of LC in patients with COPD was 10.9%. COPD patients with LC tend to have a heavier smoking history than COPD patients without LC.

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Methods of early lung cancer diagnosis in Constantza County

Doina S. Tofolean, Laura G. Mazilu, Tatiana T. Adam, Florea St. Voinea. *1st Internal Medicine Clinic, Faculty of Medicine, Constantza, Romania, Constantza, Romania; Oncology Clinic, Faculty of Medicine, Constantza, Romania, Constantza, Romania; 1st Internal Medicine Clinic, Faculty of Medicine, Constantza, Romania, Constantza, Romania*

Lung cancer is one of the most important and common malignancy. Constantza County is situated on the 3-rd place in Romania regarding the prevalence of lung cancer, and on the second place regarding its mortality rates.

The purpose of this study is to identify and evaluate the most accurate diagnostic methods available in Constantza County for the early detection of lung cancer. This study included 1556 patients diagnosed with lung cancer over a 6-year period (01 January 2000 – 31 December 2005).

We identified 10.6% patients in an early lung cancer stage. Six patients (3.6%) were asymptomatic at the moment of diagnosis. Hemoptysis was the major presentation sign (48%). The suspicion of lung cancer was raised by chest radiography abnormalities and sputum cytology. Flexible fiberoptic bronchoscopy along with endobronchial prelevation tissue procedures was the essential technique for the evaluation of pulmonary neoplasm stage and also the most important procedure for determining the positive histological and pathological diagnosis. CT-scan remains the most effective noninvasive technique for a complete diagnosis. Tumoral markers (NSE, CYFRA 21-1) were useful to complete the positive diagnosis. Histological types were: squamous cell carcinoma (59,5%), adenocarcinoma (18,3%), small cell carcinoma (13,7%) and large cell carcinoma (8,4%).

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Rheumatic syndromes as first sign of lung cancer

Tatjana I. Radjenovic Petkovic, Tatjana Pejic, Desa Nastasijevic Borovac, Milan Radovic. *Pulmology, Clinic for Lung Disease, Nis, Serbia & Montenegro*

Rheumatic disease are common paraneoplastic syndromes in lung cancer. The purpose of our study was to assess the importance of rheumatic syndromes as early sign of lung cancer. Study population consisted of 79 patients (61 male and 18 female), ranged in age from 35-79, with mean age of 59,6 years. All patients have some rheumatic syndromes before they were diagnosed as lung cancer. Patients were divided in two groups: group I with rheumatic syndromes, and group II without rheumatic syndromes. Rheumatic syndromes were verified in 17/79 patients (21,51%). The most common presentation were hypertrophic osteoarthropathy (10,12%), arthritis (6,33%) spondyloarthropathy (3,8%) and Jackoud arthropathy (1,26%).

There were not statistically significant difference in the values of C reactive protein and erythrocyte sedimentation rate between two groups, but fibrinogen values were significantly higher in group I. All patients in group I one were seronegative (rheumatoid factor negative and antinuclear antibodies negative), while C 3 component of complement were lower than normal and circulating immune complexes were higher in group with arthritis. Rheumatic syndromes were the most common (13/17) in adenocarcinoma.

Rheumatic disease as paraneoplastic syndromes may be the first sign of lung cancer. Rapid progression, atypical localisation or pure response to antirheumatic therapy in patients with risk may suggest the hidden lung neoplasm.

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Shall we disclose the diagnosis of lung cancer to the patient?

Nazire Ucar, Funda Yardim, Osman Orsel, Sibel Alpar, Selma F. Guven, Bahar Kurt. *Chest Diseases, Ataturk Chest Diseases and Thoracic Surgery Training and Research Hospital, Ankara, Turkey; Chest Diseases, Ataturk Chest Diseases and Thoracic Surgery Training and Research Hospital, Ankara, Turkey; Chest Diseases, Ataturk Chest Diseases and Thoracic Surgery Training and Research Hospital, Ankara, Turkey; Chest Diseases, Ataturk Chest Diseases and Thoracic Surgery Training and Research Hospital, Ankara, Turkey; Chest Diseases, Ataturk Chest Diseases and Thoracic Surgery Training and Research Hospital, Ankara, Turkey; Chest Diseases, University of Abant Izzet Baysal, Bolu, Turkey*

Lung cancer is among the diseases with poor prognosis and cure is not likely. Thus although to inform the patient about his disease and the prognosis of it to let him be equipped to make informed decisions about the treatment modalities is considered necessary, most clinicians prefer not to. Concerning these issues we performed a questionnaire in which 107 healthy people were involved. In the first part of the questionnaire demographical information was gathered and in the second part subjects were asked if they had lung cancer whether they would wish the diagnosis be disclosed and some other related questions.

We found that the number of people who wished to be informed was statistically higher than those who didn't ($p<0,0001$). The median age was $35,8 \pm 12,8$ and statistically was not different among the two groups, neither was gender. We found that the subjects who wished to be informed were better educated than those who didn't. 76% of the subjects who wished to be informed told that they would like to learn about the treatment modalities ($p<0,0001$) and 59% told that they would like to be informed about the disease as clearly as possible, in the appropriate time and in a manner that the doctor pays attention not to drive the patient into disappointment. About the alternative medicine, 79% of the subjects who wished to be informed revealed that they would try these methods only if the medical treatments fail.

As a result of this questionnaire we learned that people, if they occur to have lung cancer in the future, wish that the diagnosis is disclosed by the doctor in a manner that does not make them disappointed, in the appropriate time. Again information about the treatment modalities should be given stepwise.

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Lung cancer in youngsters- ethiological implications and prognosis

Milena O. Man, Monica I. Pop, Doina I. Todea, Ruxandra V. Rajnovanu, Armand N. Rajnovanu. *Pneumology, University of Medicine Iuliu Hatieganu, Cluj Napoca, Cluj, Romania*

Lung cancer is the leading cause of cancer-related mortality in both men and women. Several studies have suggested that younger patients with lung cancer have a more aggressive disease and a worse prognosis than older patients. We made a retrospective study on 100 patients, younger than 40 years, who were diagnosed as having lung cancer in Pneumology Hospital Leon Daniello Cluj, from 1995-2005. We evaluate the repartitions on sex (76% men), tobacco use (83% smokers, 3% ex-smokers, woodsmoke exposure 3%), occupational exposure (11%), family history of cancer 7% (lung cancer 4% and other cancer 3%). We analyzed the main symptoms (cough 49%, hemoptysis 29%, dyspnoea 37%, chest pain 29%, appetite loss 26%, fatigue 36%) radiologic (opacity 68%, atelectasy 17%, multiple opacities 7%, pleural effusion 5%) and endoscopic findings, the histologic type (squamous cell carcinoma 33%, small cell 43%, adenocarcinoma 12%, large cell 12%) and the relations tobacco-use-histology, stage of diseases at presentation according to TNM classification (I-9%, II-11%, III 19%, IV 61%), performance status (0-15%,

1-36%, 2-32%, 3-17%), the common site of metastatic involvement (brain 4, liver 8, bone 6, lymph node 4 skin 1). The evolution under therapy (chemotherapy 85%, surgical therapy 15 with or without radiotherapy 19%) was not good (unfavourable 57%, stationary 25%, favourable in 18% cases). Our study revealed the increase of lung cancer incidence in younger patients with an aggressive disease, with low detection rate in early stage and worse prognosis due to worse outcome compared with older patients.

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Detecting extrathoracic metastases in patients with non-small cell lung cancer
Muzaffer Metintas¹, Guntulu Ak¹, Selma Metintas², Ilknur Sahin³, Sinan Erginel¹, Fusun Alatas¹, Huseyin Yildirim¹, Emel Kurt¹. ¹Department of Chest Diseases, Eskisehir Osmangazi University Medical Faculty, Eskisehir, Turkey; ²Department of Public Health, Eskisehir Osmangazi University Medical Faculty, Eskisehir, Turkey; ³Pulmonology, Eskisehir State Hospital, Eskisehir, Turkey

To perform scans of extrathoracic sites to detect metastases in patients with non-small cell lung cancer (NSCLC) is controversial. We aimed to determine clinical and laboratory findings suggesting extrathoracic metastases and to assess the value of those in detecting extrathoracic metastases.

A total of 985 patients were included. All patients were scanned for extrathoracic metastases by a protocol. The organ-specific findings in detecting metastases were determined by multivariate analysis. Sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV) and silent metastases rate were calculated for those organ-specific findings.

The findings suggesting bone metastases were Karnofsky score <70, focal skeletal pain or tenderness, elevated serum alkaline phosphatase level, and adenocarcinoma cell type; for those sensitivity 91.1, specificity 11.9, PPV 16.2, NPV 87.7 and silent metastases rate was 8.9%. The findings suggesting brain metastases were Karnofsky score <70, neurologic signs or symptoms, decreased serum hematocrit level and adenocarcinoma cell type; for those sensitivity 89.9, specificity 8.2, PPV 9.2, NPV 88.6 and silent metastases rate was 10.1%. The findings suggesting abdominal metastases were Karnofsky score <70, elevated serum GGT or LDH level, hepatomegaly, N2-3 lymphadenopathy; for those sensitivity 100, specificity 3, PPV 9.7, NPV 100 and silent metastases rate was 0%.

We concluded that an abdominal scan is not routinely necessary for the patients have no organ-specific factors. However, silent metastases rate are about 10% for brain and bone metastases, we think that routine scanning of these organs for staging of the patients with NSCLC is necessary.

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Paraneoplastic syndrome presenting with remitting seronegative symmetrical synovitis with pitting edema (RS3PE) syndrome
Gonenc Ortakoylu, Ayse Bahadir, Figen Alkan, Evin Makas, Emel Caglar.
Respiratory Medicine, Yedikule Chest Hospital, Istanbul, Turkey

RS3PE is a definite subset of the seronegative symmetrical polyarthritis of the aged characterised by dramatic pitting oedema of the hands and/or feet, male predominance, old age, exquisite response to corticosteroids. RP3PE may be part of a paraneoplastic syndrome and heightened suspicion for underlying malignancy, especially if the response to corticosteroids is poor.

A 55 yr-old man was admitted with cough, hemoptysis and a four months history of severe swelling of hands, feet and pretibial area. His chest XR showed a left hilar mass. Chest CT scan confirmed a central tumor and invasion of tumor into mediastinum. In fiberoptic bronchoscopy a severe narrowing of left main bronchus and a tumor obstructed the orifice of the left upper lobe bronchus was found. The diagnosis was non-small cell carcinoma, made by biopsies. In primary tumor partially response achieved by radiotherapy and RS3PE totally regressed.

This case is presented as a rare manifestation of paraneoplastic syndrome associated with non-small cell lung cancer.

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The evaluation of dehydroepiandrosterone sulfate non-small cell lung cancer patients

D. Dworakowska, M. Lapinski, D. Tomaszewski, J. Skokowski, W. Rzyman, E. Czestochowska, K. Sworzczak. Medical, University of Gdansk, Poland

Several endogenous hormones have been proven to stimulate cancer growth, however only few of them are known to display oncostatic activity. Recently, the adrenal steroid dehydroepiandrosterone sulfate (DHEAS) has appeared to exert antitumor effects similar to these previously described for melatonin. In addition, experimental studies suggest a diminished DHEAS production correlated with neoplastic progression. The aim of this study was to assess the clinical significance of DHEAS concentration in non-small cell lung cancer patients (NSCLC), who were radically operated in Medical University of Gdansk, Poland in 2003-2005. The study group consisted of 71 NSCLC patients (61 men and 10 women, aged from 47 to 78 years, with the mean age of 63 years). The control group consisted of 30 healthy donors, similar to cancer group according to age, sex, additional diseases and smoking. In NSCLC group the concentration of DHEAS was assessed before operation. In NSCLC group the mean concentration of DHEAS was significantly lower in comparison to control group ($4.09 \pm 2.4 \mu\text{mol/l}$ vs 5.9 ± 3.2

$\mu\text{mol/l}$, $p=0.03$). DHEAS concentrations negatively correlated with age in NSCLC patients and in control group ($p=0.03$ and $p=0.04$, respectively). There was no difference in the mean concentration of DHEAS between patients with different stage of disease, different tumor types or differentiation. Our results suggest that in NSCLC patients the concentration of DHEAS seems to be reduced; however the clinical significance of this observations remains unknown.

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Comparison of opium users and non-users at the time of diagnosis of primary non-small cell lung cancer

Hamidreza Abtahi¹, Mohammad Ali Mohagheghi², Hamidreza Shaeri², Zahra Taleb³. ¹Respiratory and Critical Care, Imamkhomeini Medical Center, Tehran, Iran; ²Cancer Institute, Imamkhomeini Medical Center, Tehran, Iran; ³Instructional Technology, Azad University, Tehran, Iran

We reviewed two hundred and twenty-four lung cancer patient records visited in our center from 1996 to 2002. Twenty three non small cell lung cancer (NSCLC) patients were opium-user. We chose another 23 patients from non opium-users by matching their sex, age, smoking history, and the histological type of the cancer. Opium users had less cough and dyspnea ($P=0.032$) and they had a trend to be more asymptomatic (table 1) and having distant metastasis especially skeletal at the time of diagnosis (Figure 1).

Table 1: Presentation Signs and symptoms of NSCLC

	Non- opium users	Opium users
Cough	18 (78.3%)	14 (60.9%)
Dyspnea	10 (43.5%)	6 (26.1%)
Cough + Dyspnea§	21 (91.3%)	15 (65.2%)
Hemoptysis	7 (30.4%)	9 (39.1%)
Chest pain	5 (21.7%)	5 (21.7%)
Pleural effusion	6 (26.1%)	5 (21.7%)
Fever	5 (21.7%)	3 (13.0%)
Hoarseness	2 (8.7%)	2 (8.7%)
SVC syndrome	2 (8.7%)	1 (4.3%)
Asymptomatic	1 (4.3%)	3 (13.0%)

§ P value = 0.032, other differences were not statistically significant.

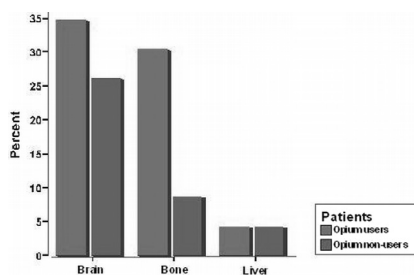


Fig. 1. Site of NSCLC distant metastasis at the presentation time.

The relative risk for distant metastasis and skeletal metastasis were 1.36 (0.81-2.30) and 1.31(0.97 – 1.77) respectively. The relieving effects of opioids on pain, dyspnea and cough may be responsible for less cough and dyspnea in opium users and by delaying the diagnosis the trend to more metastasis. Clinicians need to emphasize opium and opioid use in history taking of a suspected lung cancer and consider different presentation of NSCLC in opium users.

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Prospective study: a group of patients with haemoptysis and normal chest x-ray over a 6 years period

Akhtar Ali Akhtar. Medicine, Whiston Hospital, Prescot Liverpool, Merseyside, United Kingdom

Objective: The objective of this research was to assess diagnostic role (yield) of fiber optic bronchoscopy (FOB) in patients with haemoptysis and with normal chest x-rays, in two hospitals and then compare it nationally and internationally.

Design: Prospective analysis of diagnosis of lung cancer of a patient with haemoptysis and with normal chest x-ray.

Setting: Whiston Hospital (Merseyside) and Victoria Hospital (Fife Region).

Participants: All within the age range of 19-94 years (with the mean age at 57.5 years) and in all ethnic groups. The gender was mixed. There were altogether six hundred patients; who had attended our bronchoscopy units over the past 6 years.

Main Outcome Measures: A total of 600 patients under went for Bronchoscopy procedure. 143 were from Victoria hospital and 457 from whiston hospital. Out of these 156 were with haemoptysis. Positive bronchoscopy results were only in 8 patients with normal chest x-rays.

Results: A strategy by doing bronchoscopy first, 6.9% of the patients proved positive for lung malignancy who came with normal chest x-rays and with haemoptysis. Nationally 6 – 7% patients diagnosed lung cancer with bronchocopy with similar circumstances.

Conclusions: It appears that CT scan and FOB are not competitive but complementary in assessing patients with haemoptysis and normal chest x-rays. CT scan can not replace FOB in its ability to provide biopsy and broncho alveolar lavage specimens for histological, cytological and bacteriological examination. So we recommend that CT scan of thorax should only be done in cases of haemoptysis with normal chest x-rays with abnormal FOB, Or to rule out benign lung pathology like bronchiectasis.

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Haemoptysis revealing a thrombosis of an arterial aneurysm secondary to inherited protein c deficiency

Ibtihel Khouaja, Fatma Tritar, Samira Merai, Sonia Ben Mrad, Olfa Kahloul. Pavillon C, Abderrahman Mami Hospital, Ariana, Tunisia

The hereditary thrombophilias are a group of inherited conditions that predispose to thrombosis. Heritable deficiencies of the endogenous anticoagulants protein c, protein s and anti-thrombin III have been recognized for some years. They are caused by genetic mutations resulting in quantitative and qualitative deficiencies. These deficiencies predispose to venous thrombo-embolism in 5 to 8% of the cases. Arterial thrombosis are uncommon and occur especially in children. This report describes the unusual occurrence of recurrent both venous and arterial thrombosis as presenting symptoms of congenital protein c deficiency in a 47 year old woman. The patient presented for haemoptysis which the cause was a thrombosis of arterial aneurysm of the left sub clavier artery.

The coagulation study indicate a reduced free protein c antigen levels (40%) and the immunological study identify a primary anti-phospholipids syndrome. Despite an effective anticoagulation, the patient continues at developing recurrent arterial and venous thrombosis.

Heritable deficiencies of the endogenous anticoagulants in addition to auto-immune disorders mainly systemic lupus erythematosus and primary anti-phospholipids syndrome expose to recurrent arterial and venous thrombosis that are hardly controlled despite an effective anti-coagulation.

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Leiomyoma of the trachea – an unusual case

Mustafa Erelel¹, Zuleyha Bingol¹. Pulmonary Medicine Department, Istanbul University Istanbul Medical Faculty, Istanbul, Turkey; Pulmonary Medicine Department, Istanbul University Istanbul Medical Faculty, Istanbul, Turkey

We present a rare case of leiomyoma in trachea in a 25-pocket/year smoker 46 year-old man who had been admitted with hemoptysis and paroxysmal cough. There was only apical sequelae lesions on CT. Bronchoscopy revealed to explain haemoptysis and protruding 3-4mm polypoid lesion on trachea was seen. The biopsy specimens revealed that the lesion was leiomyoma of the trachea. Because of recurrent hemoptysis (200ml) bronchial angiography was performed; bleeding on right-left paracardiac parenchyma via right-left common bronchial artery trunkus appeared and we performed embolization of the right-left common bronchial artery trunkus. Then the symptom improved

In this case trachea leiomyom was detected incidentally when evaluating for hemoptysis. The incidence of this primary tracheal tumor is rare, and benign lesions are much less common than malignant lesions. Only 20 cases have been reported. Leiomyoma of the trachea is extremely rare. Of the pulmonary leiomyoma reported, 18.3% were found in the trachea, 33.8% in the bronchi and 47.9% in the parenchyma. Bronchial lesions tend to produce symptoms due to partial or complete obstruction of the affected bronchus, whereas, over 90% of parenchymal lesions which are more common in women, are asymptomatic and usually discovered on routine chest radiographs. Among the male patients, most cases were around 50 years old but among female patients, there was no standard age for this disease. Clinical symptoms included coughing, dyspnea, wheezing and bloody sputum.

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The causes of haemoptysis in admitted patients to Regional Center of Pulmonology

Grzegorz Przybylski¹, Maciej Romanski¹, Ryszard Golda². ¹The Department of Chest Diseases, The Nicolaus Copernicus University, Collegium Medicum, Bydgoszcz, Poland; ²The Department of Immunology, The Nicolaus Copernicus University, Collegium Medicum, Bydgoszcz, Poland

Introduction: Haemoptysis and haemoptoe mainly differ in the amount of expectorated blood. Haemoptysis almost exclusively involves bronchial arteries, rarely vessels of the pulmonary-artery circuit. Haemoptoe is one of serious pulmonary symptom and often extraordinarily essential is quick of diagnosis his causes and application suitable treatment.

Objectives: The analysis of patients with haemoptysis, the opinion of usefulness of diagnostic investigations as well as examining the frequency of occurrence of individual causes of haemoptysis.

Methods: The analysis was included 257 patients with haemoptysis admitted to Regional Center of Pulmonology between September 2005 and December 2005. The data were collected retrospectively.

Results: To Hospital Infirmary with haemoptysis was admitted the most often the men (71%) in age above 60 years (59%), with basic education (31%) or of

the principle professional (27%), with anamnesis - lung chronic disease (33%). They presented except of haemoptysis the most often the concurrent symptoms: cough(51%), fever (15%), pain of chest (17%), shortness of breathe (16%). All patients were executed X-ray image of chest and majority (77%) bronchoscopy with taking material to microbiologic, cytologic or histopatologic investigations. Diagnostics of patients' was broadened about the CT of chest (24%). They were in order the causes of haemoptysis the lung cancer (43%), the bronchitis and / or pneumonia (24%), exacerbation the COPD (15%), the tuberculosis (15%), the pulmonary embolisation (4%) and other (10%).

Conclusions: The tumours of respiratory system are the the most frequent cause of Haemoptysis. The equal frequency of haemoptysis are COPD and tuberculosis.

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Cigarette smoking among adolescents, its influence on external respiration function indices and life quality parameters

Slepchenko Natalia Stepanivna, Mostovoy Yuriy Mihailovich, Rasputina Lesia Viktorivna. Propedeutic, Vinnytsia National Pirogov Memorial Medical University, Vinnytsia, Ukraine

Study of cigarette smoking occurrence among 2123 adolescents aged 13-16 years revealed its rate to be rather high in Vinnytsia region. Females were found to form the habit of regular tobacco use quicker than boys though boys begin to smoke earlier than girls. Assessment of life quality in adolescents studied according to the international questionnaire SF-36 showed the general group of respondents addicted to smoking to have significantly lower parameters of physical, psychic and general status as compared to non-smokers. Worsening of life quality parameters was especially marked among girls who had more decreased indices than boys. Influence of smoking on external respiratory function was studied among adolescents with different degree of addiction. Smoking showed no influence on FEV1. Physical activity test revealed the tendency of rapidity parameters to decrease to threshold values in 16-year-old males with high degree of smoking intensity. The results of present investigation can be used by teachers, medical and social workers in developing and presenting antismoking activities among adolescents.

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Analysis of bone turnover in smokers and non-smokers

A. Kochetkova, A. Albavichus, A. Nevzorova, A. Barchatova. Therapy, VSMU, Vladivostok, Russia

The cigarette smoking is associated with a decrease a bone mineral density, bone formation and an increased risk of spontaneous fractures.

Aim: to assess the cigarette smoking effects on the remodeling of bone tissue in patients without COPD.

All patients were divided into 2 groups: 1 – 56 patients - smokers, 2 (control group) 62 - non-smokers.

Our results show that smokers have more low indices of bone mineral density (BMD) in comparison non-smokers (p<0.02). At baseline, mean BMD at lumbar spine in 1 group was 0,820 g/cm² (T-score=-2,23 SD) that was low in comparison in 2 group (T-score=0,82), at total hip mean BMD was 0,873 g/cm² (T-score=0,77 SD) that no statistically significant difference with group 2. The smokers patients have expressed decrease of vitamin D in the blood (42.2±1.2 nmol/l) in comparison with non-smokers (74.25±2.3 nmol/l, p<0,01). The smokers patients have expressed decrease of osteocalcin (OC) (17.2±1.2 ng/ml) in comparison with non-smokers (33.21±2.4 ng/ml, p<0,01). Increased of marker bone resorption phosphatase (TRAP) – marker osteoclasts activity - was found in smoker group. However, we did not found significant different of bone resorption marker Cross-Laps (CL) level in blood between the smokers and non-smokers. Bone biomarkers demonstrated a significant decrease in bone formation in smokers group (amino terminal procollagen type 1N propeptide – P1NP – 33,26±3,4 mg/l) with no change in bone resorption.

The results suggest that smoking is supplementary negative effect on the bone density, vitamin D, decrease bone turnover, mainly depressing the formation of bone and increasing the activity of osteoclasts.

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The IL-1β and TNF-α hematosalivary barrier function in healthy smokers

Larisa B. Postnikova¹, I. Kubysheva², Olga P. Alexeeva³. ¹Internal Diseases Chair, Military Medical Institution, Nizhniy Novgorod, Russia

The hematosalivary barrier function in stress provide the re-distribution of the substances between the blood and saliva for the supporting of systemic homeostasis.

The aim of the study was to determinate the hematosalivary barrier function for cytokines in healthy smokers.

Methods: The IL-1β and TNF-α levels in blood and saliva were measured by immunofluorescent analysis (pg/ml). The hematosalivary barrier function for cytokines was estimated by distribution coefficient value (DC= substance blood concentration/substance saliva concentration). 30 healthy smokers (age: 30-39) and 28 healthy non-smokers (age: 23-26) were enrolled.

Results: Healthy non-smokers had significantly higher IL-1β and TNF-α levels in saliva compared to its in the blood (3,6 times more). During the smoking the concentration of circulated IL-1β was increased 5 times more (p=0,01), in saliva – 2,5 times more (p=0,03) in comparison with control. The blood TNF-α level in

asymptomatic smokers was increased 3.5 times more compared to control normatives ($p=0.04$) and saliva level – 2 times more ($p=0.05$). DC healthy smokers for IL-1 β was 0.27, for TNF- α – 0.23. More than doubled intensity of the activity of the hematosalivary barrier and the increasing of it penetration were determined in healthy smokers compared to control ($p=0.05$).

Conclusion: The increasing of IL-1 β and TNF- α levels in blood and saliva (in higher activity and low penetration background of the hematosalivary barrier) may concern as early criteria of systemic inflammation response and genesis of COPD in healthy smokers.

E357

Diagnosis and therapeutic management of hemoptysis in a day care unit of respiratory department (DCURD)

Ana M. Fortuna, Isabel Blanco, Karina Portillo, Carme Puy, Diego Castillo, Raquel Catalá, Virginia Pajares, Luz Divina Sainz, Jesus Sauret. *Respiratory Department, Hospital de la Santa Creu i Sant Pau, Barcelona, Spain*

Background: The hemoptysis has an impredecible evolution with a risk of death by asphyxia(22%).The management and prognostic depend on the severity of the event which is determinate by the volume, velocity of the bleeding, functional capacity and diseases associated to the patient.The initial management and posterior etiological diagnosis will be essential for an optimal treatment.

Objectives: To study the characteristics of the patients with hemoptysis evaluated along one year in a DCURD.To evaluate the diagnosis and therapeutic management of hemoptysis in our DCURD.

Material and methods: A descriptive study was done with 91 patients visited in our DCURD in last year affected of hemoptysis.Each patient was subjected to a chest x-ray, standard analysis with coagulation test.They were treated by our pneumological protocol.

Results: Of the 91 patients (64 \pm 15 years)16 had h. moderate² and 2 patients h.serious³.The DCURD made possible an adequate control of moderated and serious hemoptysis,medical treatment and clinical observation and also let us make complementary diagnostic tests.The frequency of the diagnosis was: bronchiectasis(22%),lung cancer(17%)and post-tuberculosis sequels(14%).5 episodes were due to anticoagulant treatment and 6 were idiopathic hemoptysis.The diagnosis of lung cancer(25%)and lung tuberculosis(31%)was possible because the FBC was played in 64% patients the following 3 days after the medical visit.

Conclusions:The hemoptysis could be diagnosed and treated fastly in DCURD reducing the rate of hospitalization.The most frequent cause was bronchiectasis followed by lung cancer.Anticoagulant treatment is an important predispose factor.²30-150ml/d;³ >150 ml/d

E358

Influence of parents' and grandparents' smoking on external respiration function and life quality in their male offsprings

Slepchenko Natalia Stepanivna, Mostovoy Yuriy Mihailovich, Rasputina Lesia Viktorivna. *Depart. of Propedeutic Therapi, Vinnytsia National Pirogov Memorial Medical University, Vinnytsia, Ukraine*

External Respiration Function (ERF) and life quality indices in boys aged 14 and 16 were studied (Questionnaire SF-36) according to the presence or absence of burdened heredity regarding smoking. 30 adolescents whose both parents and grandparents smoked were included in group I. The control group consisted of 30 young men whose parents and grandparents did not smoke. 6-minute walking test showed significant difference in FEV1 decrease in group I (39% of adolescents) as compared to control group (10%), $p=0.05$. Decrease of life quality indices were also revealed in group I, physical and psychic health in particular. There were no other significant differences between two groups. Thus, passive smoking in two generations has marked negative influence on physical activity tolerance predisposing to early development of chronic obstructive pulmonary disease and decrease of the main parameters of life quality. These results can be used in the development of antismoking programs.

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The relationship between chronic obstructive pulmonary disease and restless legs syndrome

Yuksel Kaplan, Handan Inonu, Ayse Yilmaz, Semiha G. Kurt, Serpil Ocal, Hasibe Yemencici, Unal Erkorkmaz, Zehra Seyfikli. *Neurology, Gaziosmanpasa University Faculty of Medicine, Tokat, Turkey; Pulmonary Diseases, Gaziosmanpasa University Faculty of Medicine, Tokat, Turkey; Pulmonary Diseases, Gaziosmanpasa University Faculty of Medicine, Tokat, Turkey; Neurology, Gaziosmanpasa University Faculty of Medicine, Tokat, Turkey; Pulmonary Diseases, Gaziosmanpasa University Faculty of Medicine, Tokat, Turkey; Pulmonary Diseases, Gaziosmanpasa University Faculty of Medicine, Tokat, Turkey; Biostatistic, Gaziosmanpasa University Faculty of Medicine, Tokat, Turkey; Pulmonary Diseases, Gaziosmanpasa University Faculty of Medicine, Tokat, Turkey*

Introduction: Restless Legs Syndrome (RLS) is a neurological disease characterized by indescribable unpleasant sensations/dysesthesias of extremities and particularly of the legs.The relationship of RLS prevalence in chronic obstructive pulmonary disease (COPD) with clinical findings is not evident.This study aims

the comparison of clinical and laboratory findings of patients with COPD, who suffered RLS and who revealed no RLS symptoms.

Methods: 41 patients with COPD were included in the study, consisting of 37 male and 4 female patients. Those with known lung disease other than COPD, factors known to be related with RLS etiopathogenesis other than due to old age and cases with similar disease history in their families were not included in the study. RLS existed in 13 out of the 41 patients. A control group was formed from among 16 patients in the same age group with COPD but not suffering RLS. Clinical properties, blood gases, and respiratory function tests of two groups were compared.

Findings: Smoking and COPD duration was longer, FEV1's % value and FEV1/FVC ratios were lower in patients suffering RLS compared with the control group. These findings were statistically meaningful.

Results: That the COPD duration is longer, and the degree of obstruction is higher in RLS cases brought to mind that this syndrome might be seen more frequently in advanced stage COPD. As restriction in airflow will increase the degree of hypoxemia, one may think that hypoxemia might play a role in RLS etiopathogenesis. In our study, oxygen partial pressure was lower in the group with RLS, but with no statistical meaning. This result may be because of the few number of our cases.

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The incidence of sick euthyroid syndrome in chronic obstructive pulmonary disease

Dilek Kanmaz, Esin Yenturk, Baris Yilmaz, Neziha Alkan, Esin Tuncay. *Pulmonology, Yedikule Training and Research Hospital for Chest Diseases and Thoracic Surgery, Istanbul, Turkey*

Sick euthyroid syndrome (SES) is defined as abnormal thyroid hormone levels without any thyroid disease which is seen during the progression of the chronic or severe diseases. The common feature of this disorder is a low level of free triiodothyronine (fT3), with generally normal blood free thyroxine (fT4) levels and either normal or slightly suppressed thyroid-stimulating hormone (TSH). We examined the incidence of SES in COPD patients either in stable state or acute exacerbation. 45 cases, who had previously diagnosed as COPD in our clinic, with severe or moderate disease were included in the study. Cases were grouped according to the state of the disease; stable or in acute exacerbation. fT3, fT4, TSH levels and spirometry values in all cases and arterial blood gas analyses in cases with acute exacerbation were recorded. The differences were evaluated with Student-t test, and the relations were evaluated with Spearman test between two groups by SPSS 11.0 statistical program. Of the 45 cases with COPD (M/F:43/2) aged between 43 to 80 (61.6 \pm 9.9)years, 25 were in stable state and 20 cases were in acute exacerbation. Thyroid hormone levels in cases with acute exacerbation were fT3: 2.32 \pm 0.53 pg/ml, fT4:1.17 \pm 1.11 ng/dl, TSH:0.69 \pm 0.59, where the levels were fT3: 2.99 \pm 0.43 pg/ml, fT4: 0.79 \pm 0.11 ng/dl, TSH: 1.22 \pm 0.77 in stable cases. The fT3 level in the group with acute exacerbation was significantly lower than the cases in stable state ($p < 0.001$). SES was seen in %70(14/20) percent of cases with acute exacerbation and %8(2/25) of cases in stable state.

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Vitamin D status and its relationships with bone density in COPD

A. Kochetkova¹, A. Nevzorova², A. Albavichus², O.Yu. Grigoreva¹. ¹Genetic, *Institution of Genetic, Vladivostok, Russia;* ²Therapy, *VSMU, Vladivostok, Russia*

Introduction: Genetic factors play impotent role in pathogenesis of osteoporosis and many studies demonstrated relationships between genes and bone status parameters. The vitamin D receptor (VDR) is one of the most extensively studied candidate genes for susceptibility to osteoporosis.

The aim of this study was assessed the associations of serum vitamin D, BsmI polymorphism of VDR3 gene with bone mineral density (BMD) in COPD patients. **Methods:** We measured serum levels of the 25 hydroxyvitamin D (25OHD), BsmI polymorphism VDR3 gene in 65 patients with COPD. BMD was measured by dual X-ray absorptiometry. Control group was consisted by health volunteers similar age and sex.

Results: Our results show that 64% COPD patients had hypovitaminosis D (defined as a serum 25OHD < 39 nmol/l). 35% patients was found normal serum vitamin D3 level (mean 52.3 \pm 2.3 nmol/l) but lower this parameter in control group (mean 84.6 \pm 4.2 nmol/l, $p < 0.02$). Besides, the BMD in patients with COPD was significant lower in comparison with health volunteers. We discovered significant different between average indices serum 25OHD, BsmI polymorphism VDR3 gene and bone density in COPD. The COPD patients with hypovitaminosis D and genotypes bb and Bb BsmI polymorphism VDR3 gene had low BMD in the lumber spine and total neck in comparison with COPD patients with normal serum 25OHD concentration and genotypes Bb and BB BsmI polymorphism VDR3 gene.

Conclusion: Our data suggest that both vitamin D status and polymorphism of VDR3 gene in COPD patients were associated with decreased bone density and are determining in development of pulmonary osteopenic syndrome.

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Effective use of corticosteroids in the treatment of plastic bronchitis with hemoptysis in Chinese adults: a nine-year clinical experience

Gang Wang, Juan You Wang, Min Feng Luo, Lei Wang, Li Li Jiang. *The Respiratory Group, Department of Integrated Traditional Chinese & Western Medicine, West China Hospital, Sichuan University, Chengdu, China; Department of Pulmonary & Critical Care Medicine, West China Hospital, Sichuan University, Chengdu, China; Department of Pulmonary & Critical Care Medicine, West China Hospital, Sichuan University, Chengdu, China; The Respiratory Group, Department of Integrated Traditional Chinese & Western Medicine, West China Hospital, Sichuan University, Chengdu, China; Department of Pathology, West China Hospital, Sichuan University, Chengdu, China*

Introduction Plastic bronchitis is an unusual disease, which could cause obstructive of the tracheobronchial tree and respiratory distress. But its effective therapy remains unclear.

Methods A retrospective study was undertaken to evaluate the role of corticosteroids in the treatment of plastic bronchitis with hemoptysis. Thirty two patients with only first episodes of plastic bronchitis with hemoptysis in our hospital were divided into a steroid group (n=18) treated with glucocorticoid, and a non-steroid group (n=14). The supportive therapy was uniformly applied to both groups except for corticosteroids. Variables such as temperature, count of white blood cells, were determined at arrival in our hospital. In addition, the volume of hemoptysis and bronchial casts were evaluated in detail daily.

Results On days 5, 6, 7 and 8, the volume of hemoptysis was much more decreased in the steroid group compared with that in the non-steroid group (43 ± 15 vs 117 ± 33 ml on day 5, 29 ± 12 vs 97 ± 23 ml on day 6, 18 ± 10 vs 80 ± 20 ml on day 7, and 13 ± 8 vs 66 ± 14 ml on day 8, $P=0.033$, $P=0.016$, $P=0.011$, and $P=0.002$, respectively), and on day 10 after fiberoptic bronchoscopy, the cases with bronchial casts reduced evidently in the steroid group compared with those in the non-steroid group (OR=5.69, 95%CI=1.76-43.6; $P=0.005$). There was no significance in mechanical ventilation and mortality between the two groups.

Conclusion Despite some limitations of this study, it has been demonstrated for the first time that, on the basis of common supportive therapy, corticosteroids would be effective and safe for plastic bronchitis with hemoptysis.