

MONDAY, SEPTEMBER 26TH 2011

0

277. Management of tuberculosis

P2590**Determining psychological characteristics of newly diagnosed TB patients using Lüscher test**

Ludmila Pankratova, Natalia Kazimirova. *Phthisiopulmonology, Saratov State Medical University, Saratov, Russian Federation*

The course of pulmonary TB depends, to a great degree, on the state of regulatory mechanisms (of CNS and psychic sphere) that determines patients' adaptation and their ability to adequately withstand stress. We used Lüscher Color Selection Test to determine the objective psychological characteristics of our patients. 46 newly diagnosed patients (36 males and 10 females aged 21 to 71) were tested. 30 healthy individuals were tested as a control.

Results: The color green was the most frequently selected in the TB patient

474s

MONDAY, SEPTEMBER 26TH 2011

group, indicating defensiveness and passive aggressive reaction (14 first-choice selections). The color violet, corresponding to maladaptation, personality problems, individualism and emotional immaturity, followed closely (11 selections). The color yellow was third (8 selections) reflecting activity, desire to communicate and expansiveness. Lastly, the color black (5 selections) reflected protest against the situation.

In the control group, almost all the colors of the main group were predominantly selected (red - 8 selections, yellow - 7, violet - 5, green 5 and blue - 3) indicating satisfactory adaptation abilities of this group. In the TB patient group, on the contrary, only two colors of the main group were selected with sufficient frequency (green - 14 and yellow - 11). This group showed preference for violet (second-frequent) and even black, which correspond to hesitancy, emotional imbalance, excessive sensitivity and the feeling of being stonewalled.

Conclusion: Lüscher Color Selection Test revealed signs of maladaptation, personality problems, instability and frustration in TB patients.

P2591

Using SF-36 in assessment of quality of life in patients cured of pulmonary tuberculosis

Mikhail Chushkin¹, Batarbek Maliev¹, Andrey Belevskiy², Natalia Meshcheryakova², Svetlana Bukhareva³, Sergey Smerdin¹. ¹Pulmonary Physiology, Research Institute of Phthisiopulmonology, Moscow, Russian Federation; ²Pulmonary Rehabilitation, Pulmonology Research Institute, Moscow, Russian Federation; ³Rehabilitation, Medical Center, Central Bank of Russian Federation, Moscow, Russian Federation

Tuberculosis remains a public health problem with significant annual impacts on morbidity and mortality. As efficiency of treatment has increased, the focus of tuberculosis management has shifted from the prevention of mortality to the avoidance of morbidity. The aim of the study was to evaluate the quality of life (QoL) in patients who had been treated for pulmonary tuberculosis.

Methods: In consecutive fashion, QoL was studied in 152 persons at the age of 20-82 who were observed at the local dispensary and 36 healthy subjects for comparison. The SF-36 was used for assessment of QoL. Pulmonary function was studied by spirometry.

Results: Pearson correlation coefficient between SF-36 components and FEV1% ranged from 0.12 to 0.39, $p < 0.05$ but RE). Test-retest correlation ranged from 0.57 to 0.9 (all $p < 0.05$ but RP). All SF-36 components for participants with treated pulmonary tuberculosis were worse in comparison with healthy subjects ($p < 0.05$ for all but Body Pain).

Scales	Patients treated for tuberculosis	Health subjects
Physical functioning (PF), %	76,6±21,9	87,1±12,7*
Role-Physical (RP), %	67,1±39,3	90,3±22,6*
Body Pain (BP), %	70,6±27,1	79,9±21,3
General Health (GH), %	57,4±21,0	67,0±16,6*
Vitality (VT), %	63,0±19,6	72,9±14,3*
Social Functioning (SF), %	80,1±22,8	89,9±12,6*
Role-Emotional (RE), %	71,4±37,0	85,2±23,2*
Mental Health (MH), %	66,4±19,6	74,4±11,2*

* $p < 0.05$.

All SF-36 components were worse in patients with impaired pulmonary function (FEV1 < 80%).

Conclusions: Quality of life in patients with history of tuberculosis was worse than for healthy subjects. The main factor influencing quality of life was impaired pulmonary function.

P2592

Knowledge, attitudes, practices and barriers to care among tuberculosis patients in the Republic of Macedonia

Stefan Talevski, Dance Gudeva-Nikoska, Stefan Stojanovik, Charlotte Colvin. TB Department, Institute for Lung Diseases & Tuberculosis, Skopje, Macedonia, The Former Yugoslav Republic of Primary Recipient of GFATM TB Component, Ministry of Health, Skopje, Macedonia, The Former Yugoslav Republic of HIV/AIDS Department, UNAIDS, Skopje, Macedonia, The Former Yugoslav Republic of TB Department, PATH, Washington, DC, United States

Introduction: In 2008, the Global Fund funded TB program in Macedonia undertook an operations research to explore diagnostic and treatment experience KAP and barriers to care among TB patients.

Objective: To explore KAP on tuberculosis disease among TB patients, identify barriers to care in four districts in Republic of Macedonia, in order to suggest specific ideas for improvement of quality of DOTS performance.

Methods: 144 TB cases were included in the study. Each participant was interviewed with a standardized questionnaire. The data were entered into a simple Excel database and analyzed using SPSS (version 17.0).

Results: Half of TB patients never or rarely visited a doctor before being diagnosed with TB; still, 7.7% reported not having enough money to visit a doctor. Majority reported waiting time of less than an hour (61.5%) and 67.9% were generally satisfied with the care received. Two thirds of TB cases have visited a doctor within two months of feeling ill, and 20% sought care within three weeks of first

becoming sick. Although 70% respondents have reported cough at the time they visited the doctor, only 10.3% attempted to treat symptoms on their own by visiting a pharmacy (7.7%) or traditional healer (1.3%). About half correctly identified the signs and symptoms of TB, 14.1% correctly identified airborne transmission of TB and a sizable proportion did not correctly identify ways to avoid transmission.

Conclusions: The results reveal gaps in routine recording and reporting, gaps in diagnostic services and need for improved routine data management, adoption of the Practical Approach to Lung Health, new strategies to improve knowledge among people with TB.

P2593

Adults without HIV infection hospitalised for tuberculosis – Clinical and drug sensitivity profiles

Nelson Teixeira¹, Teresa Carvalho², Isabel Gomes¹, José Agostinho Marques^{1,3}. ¹Serviço de Pneumologia, Hospital de São João, Porto, Portugal; ²Serviço de Patologia Clínica, Hospital de São João, Porto, Portugal; ³Faculdade de Medicina, Universidade do Porto, Porto, Portugal

Background: Tuberculosis (TB) remains a major health problem and an important cause of hospitalisation for severity.

Aims: To evaluate clinical and drug sensitivity profiles of patients without HIV infection hospitalised for TB.

Methods: A retrospective study of adults admitted for TB to a tertiary hospital between 2007-2010, without HIV infection. Age, gender, clinical presentation, comorbidities, radiological findings, diagnosis, drug sensitivity, therapy and outcome were evaluated.

Results: The study included 207 patients, 18 to 89 years (mean 54,3 years). Of all, 69,6% had pulmonary TB, 10,1% pleural TB, 12,6% disseminated disease and 7,7% other forms. Co-morbidities were found in 136 patients. Main chest X-ray findings were unilateral (23,2%) or bilateral (17,9%) infiltrates, cavitation (14,5%) and pleural effusion (14,5%). M. tuberculosis was isolated in bronchial secretions in 125 cases, bronchial lavage in 46, gastric aspirate in 25, bronchoalveolar lavage in 23 and other products in 40. There was sensitivity to all first line TB drugs in 85,2% cases, mono-resistance in 10,9%, poly-resistance in 3,3% and multi-drug resistance in 0,5% (a extensively resistant case). Streptomycin (12,6%) and isoniazid (6,0%) had the highest resistance. Death occurred in 22 patients (10,6%), 86,4% had severe co-morbidities. The other patients were transferred to other hospitals (7) or discharged to out-patient TB clinics (178), 99 of them also referred to hospital consultations.

Conclusions: In this group of patients co-morbidities were frequent, mortality was relevant and pulmonary TB was predominant as expected. TB drug sensitivity profile was not significantly different from ambulatory patients.

P2594

Post-menopausal mammary tuberculosis – Report of three cases

Khalid Bouti, Karima Marc, Rachida Zahraoui, Jaouda Benamor, Jamal Eddine Bourkadi, Mouna Soualhi, Ghali Iraqi. Department of Respiratory Disease, Hôpital Moulay Youssef, Rabat, Morocco

Breast tuberculosis is a rare disease, responsible of 0.6 to 4.5% of all breast diseases.

It poses the problem of differential diagnosis with breast cancer. It is rare among men, children and after menopause.

The authors report on the following three new cases of postmenopausal breast tuberculosis:

- The first patient had right breast tuberculosis (2 nodules) with pleuro-pericarditis and military tuberculosis. She was placed under SRHZE association and steroid therapy.

- The second patient had right breast tuberculosis (1 nodule) with a homolateral axillary lymphadenopathy and no other tuberculosis localizations. A RHZE therapy was started.

- The third patient had association of right breast cancer treated by mastectomy followed by radiotherapy, and homolateral breast tuberculosis treated by RHZE. After few months, clinically significant changes in symptoms and mammography were observed in the first two cases while the third one had no symptoms.

The therapy was maintained during 6 months. The three patients had remained stable for 24 months after the diagnosis. No recurrence was observed. Through these three cases, the authors will describe the epidemiological, radioclinical aspects and pathogenesis of post-menopausal mammary tuberculosis.

P2595

The particularities of pulmonary tuberculosis (TB)-diabetes mellitus (DM) syndrome in a community with high prevalence for TB

Ghiulten Apti¹, Anamaria Traillescu². ¹Pneumology, Hospital of Pneumology, Constanta, Romania; ²Pneumology, Hospital of Infectious Disease V Babes, Bucuresti, Romania

It is well known that patients with DM had a greater risk for TB. Our city is known with one of the highest prevalence of TB in our country. Aim to investigate the features of TB-DM syndrome;

We made a case control epidemiologic study - on 292 patients hospitalized between 2005-2009; we enrolled 146 patients diagnosed with new case-TB (group 1) and

146 patients with TB and DM (group 2); data were collected by reviewing the medical records of hospitalized patients.

Results: In group 2 DM was diagnosed after TB in 24%; TB occurred after an average period of 5,5 years in those with previous DM; DM had type 1 in 34% and type 2 insulin necessitant 50,1%; in both groups predominated insidious onset; hemoptysis was more frequent in TB lot and fever and malaise in DM-TB; in 6% onset was with diabetic coma. Radiological pattern: in group 2 predominated bilateral infiltrates (extensive form) and atypical localization (lower lobes); pleurisy and cavitation were frequent in group 1; bacteriological exam 74% smear positive in group 2 and 71% in group 1; the rate of negativity under treatment was slower in lot 2: 37% still positive after 2 months, and 7% after 3 months; complications under treatment occurred more frequent in group 2 (hepatitis and hematologic changes); costs with medication and hospitalization (average: 78 ± 16 days) were greater in group 2 (about three fold); early relapses occurred only in 3,9% in group 2 and 9,2% in group 1 ($p=0,001$).

Conclusions: DM represent a risk for TB; Time between onset of DM and TB was shorter than in literature. In DM patients disease is more extensive with slower healing and high percent of complication during treatment than those without DM.

P2596

Aspects of relationship between alcoholism and tuberculosis

Simona Apetrei. *Pneumology, Municipal Hospital Urziceni, Urziceni, Romania*

This retrospective study aimed to determine the relationship between tuberculosis, an infectious disease and alcoholism a metabolic and behavioural chronic disease, in a region of Romania - an European country with a high incidence of tuberculosis. During the period 2007-2009 was registered 297 TB patients aged 15 in Urziceni area. Out of them 64 were chronic alcoholics - 51.5% new cases and 48.5% relapses. From these cases, 89.1% were men and 92.2% patients were from rural zone. The most affected age group was 55-64 years old. There prevailed the pulmonary forms, most of them being diagnosed with advanced states of sickness, intensely contaminating. The alcoholics have greater difficulty adapting to the rules and regulations of hospital life, more frequently leave the hospital against medical advice and are more commonly given disciplinary discharges. These patients had also a great frequency of associated pathology, especially digestive diseases, neuropsychic and cardiovascular pathology. The compliance to the treatment and the rate of favourable results were generally bad. The percentage of subjects cured was low - 45.3%; the percentage of failures, relapses and deceased was important. The major reason for poorer prognosis and therapeutic results was the relative lack of cooperation of patients. The alcoholics have greater difficulty adapting to the rules and regulations of hospital life, more frequently leave the hospital against medical advice and are more commonly given disciplinary discharges. So, the alcoholism is strongly associated with non-compliance, low social status and great frequency of other diseases and also the necessity for supplementary measures for rigorous surveillance and health education for this category of TB patients.

P2597

Certain aspects of the association between tuberculosis and cancer

Maria Panescu, Camelia Vasilescu, Mihaela Archip. *Pneumology Ambulatory, Clinical Hospital of Pneumology, Iasi, Romania*

Romania still remains one of the countries with high tuberculosis (TB) incidence, and one of the risk factors is represented by neoplastic diseases. In this study we are analyzing certain aspects of the association between the two diseases, in a patient group registered with tuberculosis in Iasi County between 1998 and 2010. The studied group had 2451 patients who were treated of TB during the mentioned period of time. 55 of them were also diagnosed with cancer (before, during or after the tuberculosis treatment was administered). Across the patient group the age varied from 37 to 81 years old, 39 (71%) were smokers or ex-smokers and there were mostly men 43 (78%). The most frequent type of cancer had a pulmonary location (55%) and the predominant histology variant was non-small cell carcinoma. Other organs affected by cancer included the larynx, pleura, digestive system, lymphatic cells, skin, uterus, urinary bladder, and breast.

The treatment and bacteriological evolution of tuberculosis in patients with associated cancer did not pose any special problems. Even so, an important issue to be underlined is the rate of death that was 25% much higher than in the case of patients diagnosed only with TB. The cancer diagnosis in tuberculosis patients with BK positive sputum smear at the microscopic examination was delayed between two and eight months.

In conclusion, patients older than 40 years, smokers and ex-smokers, diagnosed with tuberculosis should be supervised more carefully because of the risk of cancer, and the necessary investigations for diagnosing neoplastic diseases should be performed in the same time as the ones for TB.

P2598

Tuberculosis after renal transplantation

Ventsislava Pencheva, Ognian Georgiev, Daniela Petrova. *Department of Internal Medicine, Clinic of Pulmology, UMHAT "Alexandrovskia" Medical University, Sofia, Bulgaria*

Background: Tuberculosis (TB) is one of the leading causes of morbidity and

mortality in renal transplant recipients. Due to the chronic immunosuppression the diagnosis is difficult.

Aim: The aim of our prospective study is to determine the frequency and outcome of TB after renal transplantation.

Material and methods: For the period of 31 months were examined 52 patients after renal transplantation with pulmonary complaints. To diagnose the patients were used different noninvasive and invasive methods for diagnosis.

Results: In 5 cases (9.61%) were proved active tuberculosis. The mean age of these patients was 45 years (range 34-55 years) and mean time from transplantation to diagnosis was 94 months (range 2-180 months). The pulmonary infiltrative form was the most common form (60%), 1 patient was with specific pleuritis (20%) and disseminated TB occurred in 1 patient (20%).

The diagnosis was proved bacteriology on respiratory specimen cultures in 4 cases (80%) and histology in 1 case. The immunological tests for tuberculosis were positive in all 5 patients. In 3 patients (60%) there was co-infection with cytomegalovirus. The 3 patients (60%) were successfully treated with four-drug combination therapy. 1 of the patient lost the graft and 1 patient died.

Conclusions: TB is one of the most common infections among renal transplant recipients. Early diagnosis by using immunology tests and invasive methods, treatment of CMV-infection and effective therapy can improve graft survival and reduce the morbidity and mortality from this condition.

P2599

Tuberculosis is common in ethnic minority patients with chronic kidney disease in United Kingdom, and there is a high level of drug resistance

Paramita Palchoudhuri¹, Alexandra Riding¹, Parvin Begum¹, Marlies Ostermann², Heather Milburn¹. ¹Department of Respiratory Medicine, Guys and St Thomas' NHS Foundation Trust, London, United Kingdom; ²Department of Renal Medicine, Guys and St Thomas' NHS Foundation Trust, London, United Kingdom

Introduction: Chronic kidney disease (CKD) is more common in ethnic minority groups in UK and these patients have a high incidence of TB. We performed a study to characterise ethnicity and resistance patterns of patients with CKD and TB at a large renal unit in London.

Methods: 40 CKD patients who developed TB from 1994-2010 were analysed retrospectively. Patients were categorised by country of birth and time spent in the UK prior to development of TB, divided into <5 years or >5 years. Resistance patterns were sought as well as HIV status and Vitamin D levels.

Results: Ethnicities were: 15 Black-African, 9 Asian, 7 White-British, 6 Black Caribbean, 3 White-Other (including eastern Europe). 27 patients were non-UK born (67.5%). 4 had lived in the UK for <5 years. Vitamin D levels were performed in 11 patients & were low in 10 (<60 nmol/l). 5 patients were HIV positive (3 Black-African and 2 Black-Caribbean). 5 patients (12.5%) had drug resistance (3 Black-African, 1 Black-Caribbean and 1 White-Kosovan) & two of these were HIV positive.

Conclusion: Most CKD patients with TB were from ethnic minorities not born in UK. Most had lived in UK for >5 years suggesting TB development was not linked to duration in UK and that CKD is in itself a big enough risk factor. Vitamin D levels were low, as expected in both TB & CKD. Drug resistance (12.5%) was higher in ethnic minorities & HIV+ve patients with CKD, compared to background rate (4.9-6.1%)¹. Hence it is important to look out for TB in ethnic minorities with CKD & also for drug resistance.

¹Number and proportion of tuberculosis cases with drug resistance by country, UK, 2008. www.hpa.org.uk

P2600

Smoking is a risk factor for TB infection, but is it an additional mortality risk?

Nada Bogdanovic¹, Biljana Lazovic², Branislava Milenkovic³. ¹Pulmology, University Clinical Hospital Center Dr Dragisa Misovic, Belgrade, Serbia; ²Pulmology, University Clinical Hospital Center Zemun, Belgrade, Serbia; ³Pulmology, Clinical Center Serbia, Belgrade, Serbia

Aim: To investigate smoking habits of patients (pts) died of TB and successfully treated TB pts.

Material and methods: Comparative study of epidemiological data of TB deaths and TB pts, 135 in both groups, none HIV positive, in 2000-2009.

Results: 135 TB deaths occurred (mortality rate 6.4%), 76.6% of them died of TB.

TB deaths: male were 76.3% (103 pts), aged 18-88 years, (1.6% under 25ys, 14.6% pts aged 25-44 ys, 45.2% pts aged 45-64ys, 38.6 over 65ys). Smokers 81%, kofing 7.8 months before admittance, average weight loss was 10.2kg.

TB pts: Of 135 pts male were 65.2% (88pts) aged 17-88 years, (8.3% under 25ys, 25.9% aged 25-44ys, 31.8% aged 45-64ys, 31% over 65), 51% (69pts) smokers; kofing before admission for average 4.1 months (1-12), average weight loss was 3.4kg (0-10).

Conclusions: In TB deaths group were more smokers (4/5 vs 1/2), older (84% over age 45 vs. 34% under age 44) and more male (76% vs 65%) than in the other group. They were kofing almost twice longer and had 3 times bigger weight lost before admitting. This delay may be due to fact they consider kofing as normal for smokers, but also as a result of confounding factors (alcohol use, socioeconomic). Tobacco control should be incorporated in TB control.

MONDAY, SEPTEMBER 26TH 2011

P2601**What about asthma in tuberculosis patients**

Haifa Zaibi, Leila Fekih, Iness Akrouf, Eya Tangour, Hela Hassene, Dorra Greb, Sorraya Fenniche, Hajer Ben Abdelghaffar, Dalenda Belahbib, Momamed Lamine Megdiche. *Service Ibn Nafiss, Hopital Abderrahmen Mami, Ariana, Tunisia*

Introduction: The association of asthma and tuberculosis is rare but may raise particular issues around patient management. The aim of this study was to evaluate the control of asthma in tuberculosis patients.

Patients and methods: We describe a retrospective study, which included ten asthmatic patients with tuberculosis during the period between June 2001 and June 2010.

Results: Five men and five women were included, mean age was 37 years. Seven of them had pulmonary tuberculosis and three had lymphatic nodes tuberculosis. Two patients had mild asthma, seven had moderate asthma and only one had severe and corticosteroid-dependant asthma. Seven patients had controlled asthma when tuberculosis diagnosis was established. Asthma treatment was based on inhaled corticoids and long-action Beta-2-agonists. During anti-tuberculosis treatment two patients developed near fatal asthma. Long-term stable asthma control was achieved over a time course of three to eight years.

Conclusion: The association of asthma and tuberculosis can lead to potential therapeutic difficulties because of pharmacologic interactions between anti-tuberculosis therapies and treatments for asthma treatment. In addition, asthma following treatment for tuberculosis appears to be well controlled.

P2602**A case of pulmonary tuberculosis combined with tuberculous gonitis in a 12-year-old immigrant patient with haemophilia A**

Reka Bodnar¹, Agnes Subicz², Tamas Lowy², Laszlo Kadar². ¹Department of Pharmacy Administration, Semmelweis University, Budapest, Hungary; ²Paediatric Department, Pest County Pulmonological Institute, Torokbalint, Hungary

Introduction: 9.4 million new tuberculosis (TB) infections and 14 million prevalent cases of TB were recorded world-wide in 2009 [1]. Hungary is a low incidence country with an incidence of 14.4 per one-hundred-thousand in 2009.

Case report: A 12-year-old Afghan boy was admitted to the hospital with pulmonary TB, Haemophilia-A and a swelling of his left knee. He presented symptoms of coughing, haemoptysis and swelling of the left knee for one year. Pulmonary TB was diagnosed in Pakistan and was treated with rifampicin, pyrazinamide and ethambutol for 43 days and amputation of the left knee was suggested. He was transported to Hungary to find an alternative therapy to his knee. With physical examination cachexia, and diminished breath sounds over the apical right lung were found. The left knee was in flexion contracture, the skin of the knee was brownish-purple with the lack of the epithelium and some fistulas.



From the discharge of the fistulas *Mycobacterium tuberculosis* was identified. We completed the antituberculous treatment with isoniazid for 162 days. The pulmonary manifestation was recovered in 2 months, and the left knee showed significant improvement after 5 months.

Conclusion: This case calls the attention to the immigrants' TB screening.

Reference:

[1] WHO report 2010. Global tuberculosis control. The global burden of TB: 5-7.

P2603**Pulmonary tuberculosis relapses: A report of 44 cases**

Lotfi Nacef, Omar Saighi. *Thoracic Diseases Departement, E.P.H of Blida, Blida, Algeria Thoracic Diseases Departement, E.P.H of Blida, Blida, Algeria*

Introduction: TB relapse is defined as any case of pulmonary tuberculosis treated, cured, and in whom TB is diagnosed on the basis of a smear or culture bacteriologically positive. its incidence in Algeria is 4.97%.

Aims and objectives: The aim of our study is to clarify the characteristics of the epidemiology, predisposing factors and diagnosis aspect of TB relapse.

Methods: Our retrospective study concerned 44 cases of pulmonary tuberculosis relapses confirmed among 559 patients, treated for pulmonary tuberculosis in the TB control unit of Blida between January 2005 and December 2009.

Results: Our series has assembled 27 men and 17 women with a mean age of 37 years, 86% of cases have already been treated for over one year for pulmonary tuberculosis. Comorbidities were found in 39% of cases, including diabetes (16% of cases) and psychiatric disease (6% of cases). The study notes the occurrence of relapse in 41% of cases during the first quarter of the year. Bacteriological confirmation of relapse by smear sputum was positive in 95% of the cases, the culture of BK was contributory in 5% of cases. The radiological involvement is bilateral in 50% of cases, moderate extent in 60% of cases, and with excavations in 93% of the cases. The second line TB treatment (2SRHZE/1RHZE/5RH) was introduced in all patients with a good outcome in the majority of cases, however we regret one treatment failure, and 4 cases of surrendering treatment. The radiological progression after 8 months of treatment, notes a cure without sequelae in 23 cases and with sequelae in 14 cases.

Conclusions: We emphasize the frequency of relapse tuberculosis and their need for adequate care with regular monitoring to avoid the transition to chronicity.

P2604**Unusual forms of pulmonary tuberculosis**

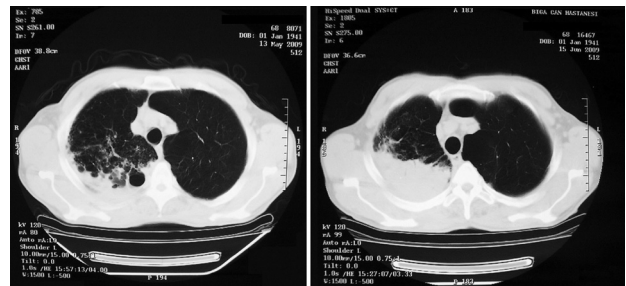
Nahid Zagbba, Najiba Yassine, Ahlam Ech-Cherrate, Abdelaziz Bakhtar, Abdelkrim Bahlaoui. *Respiratory Diseases, University Hospital Center, Casablanca, Morocco*

Pulmonary tuberculosis PT is generally easily recognized by its classic features. Nevertheless, the radiological setting could be misleading, suggesting other diagnoses. We report 51 cases of PT with unusual in appearance and site (pseudotumoral 14 cases, endobronchial 25 cases, basal 8 cases and balloon release 4 cases). It occurred in 30 males and 21 females with a mean age of 40 years old (range age 15-71 years old). Twenty males were smokers. The clinical setting was dominated by bronchial syndrome, chest pain and haemoptysis. Chest X-ray showed pulmonary opacities-like tumor in 14 cases, retractable opacities in 20 cases, enlarged mediastinal lymph node in 5 cases, basal excavated opacities in 10 cases and a balloon release in 4 cases. Bronchoscopy showed endobronchial granulomas in 15 cases, bud-like tumor in 8 cases and mediastinal lymph node fistula in a bronchus in 2 cases. Chest scan highlighted a peripheral tumor-like process in 6 cases and a balloon release in 4 cases. The diagnosis of PT was confirmed by bacilloscopy in bronchial aspirate in 26 cases, bronchial biopsy in 20 cases, transmurial biopsy in 6 cases, biopsy under thoracoscopy in 4 cases and an open surgical biopsy in 3 cases. Under antibacillary therapy, the evolution was favorable in all the cases. Despite their rarity, unusual forms of tuberculosis should be better known as it could simulate cancer especially in its particular pseudotumoral form.

P2605**Paradox radiologic progression despite appropriate antituberculosis therapy**

Ugur Gonlugur¹, Sule Kosar², Arzu Mirici¹. ¹Department of Chest Diseases, Canakkale Onsekiz Mart University, Canakkale, Turkey; ²Department of Radiology, Canakkale Onsekiz Mart University, Canakkale, Turkey

In this study we report a HIV negative case who got worse paradoxically in the course of antituberculosis therapy. A 68-year old male patient applied with complaints of cough, chest pain, and weight loss. Chest computed tomography revealed an irregular nonhomogenous opacity involving the apical and posterior segments of superior lobe of right lung.



At the end of the first month of therapy radiological lesions increased.

There was no endobronchial lesion on bronchoscopy, and no acid-fast bacilli in bronchial lavage fluid. Therapy protocol was not changed but radiological lesions regressed gradually. In conclusion, temporary deteriorations can occur in previous pulmonary infiltrates in patients who are under appropriate antituberculosis therapy. The gold standard for monitorization is microbiological methods but not radiological ones. Comorbid conditions, drug reaction and treatment failure is important in the differential diagnosis.

MONDAY, SEPTEMBER 26TH 2011

P2606**Baseline and treatment completion chest radiographs in pulmonary and extra-pulmonary tuberculosis**

Suzanne Bartington¹, Susan Hopkins², Charlotte Cash³, Joanne Cleverley³, Ian Cropley⁴, Marc Lipman⁵. ¹Royal Free and University College London Medical School, UCL, London, United Kingdom; ²Departments of Infectious Diseases and Microbiology, Royal Free Hospital, London, United Kingdom; ³Department of Radiology, Royal Free Hospital, London, United Kingdom; ⁴Department of Infectious Diseases, Royal Free Hospital, London, United Kingdom; ⁵Department of Respiratory Medicine, Royal Free Hospital, London, United Kingdom

Background: Chest radiographs (CXR) are key to the diagnosis & management of tuberculosis (TB). End-treatment CXR (E-CXR) provide information on therapy response & risk of post-treatment pulmonary sequelae.

Objectives: 1.To report factors associated with baseline CXR (B-CXR) in pulmonary TB (PTB) & extra-pulmonary TB (EPTB).

2.To document the use of E-CXR in subjects with abnormal (abN) baseline CXR (B-CXR).

Study design: Retrospective data for TB patients at our hospital (1.1.06 - 31.12.08) were obtained from the London TB Register. Patients were classified by TB notification as PTB, EPTB or EPTB with pulmonary involvement (EPTB+PTB). B-CXR (2mths pre- to 1mth post- start TB treatment) & E-CXR (2mths peri-end TB treatment) were reviewed blind by 2 respiratory radiologists.

Results: Of 305 patients, 113 (37.0%) were diagnosed with PTB, 155 (50.8%) EPTB & 37 (12.1%) EPTB+PTB. 285 (93.4%) had B-CXR performed in the correct time period (early/late 5.6%, not performed 1.0%) with no significant difference by TB clinical status. Female patients were less likely to have a B-CXR (F: 89.6%, M: 97.4%, $p<0.001$) which remained significant in multivariable analysis. 149 (52.3%) had E-CXR: more likely in those with abN B-CXR (63.1% abN, 23.8% normal, $p<0.001$). 116 of 198 (58.6%) with abN B-CXR had an E-CXR with radiology review available. Of these 24 (20.7%) had abN E-CXR including radiological evidence of active TB ($n=14$, 12.1%).

Conclusion: B-CXR was performed in 99% cases. E-CXR use was sub-optimal in those with baseline abnormalities, especially as one-fifth of those performed remained abnormal and often suggestive of active disease.

P2607**Radiological features of pulmonary tuberculosis in patients with diabetes mellitus**

Belma Paralija, Hasan Zutic. *Department for Pulmonary Diseases and TB, University Clinic of Pulmonary Diseases and TB, Sarajevo, Bosnia and Herzegovina* *Department for Pulmonary Diseases and TB, University Clinic of Pulmonary Diseases and TB, Sarajevo, Bosnia and Herzegovina*

Background: The association of pulmonary tuberculosis (PTB) and diabetes mellitus (DM) is very common.

Aims and objectives: To find out whether there is difference in presentation of radiological images of PTB in diabetic patients comparing to non-diabetic patients affected by PTB.

Methods: We screened 97 diabetic patients with established diagnosis of PTB and 97 patients affected by PTB without diabetes mellitus. Chest radiography of both groups were reviewed and compared in the time of establishing PTB diagnosis. Then a partial tuberculous (TB) infiltrate regression on chest radiography after the antituberculous treatment initiation, defined as obvious reducing of infiltrate size, was observed. The time of radiological regression was estimated as the number of days needed for partial radiological regression.

Results: On the chest radiography upper lung lobe is involved by TB lesions in 42.2% diabetic and 62.5% non-diabetic patients ($p<0.01$); lower lung lobe in 14.5% diabetic, and in 4.5% non-diabetic patients ($p<0.05$). Chest radiography TB infiltrate regression is achieved in 98.9% TB patients without DM compared to diabetic patients (87.5%) ($p<0.05$). The difference in the average number of days needed for partial radiological regression after the onset of antituberculous treatment is statistically high significant ($p<0.001$) between two examined groups (57.75 days in diabetic patients and 33.68 days in non-diabetic group).

Conclusions: PTB in diabetic patients is more likely to present with atypical radiological images and radiological TB infiltrate regression is prolonged in diabetic patients.

P2608**Latent tuberculosis infection (LTBI) treatment completion and complication in Leeds, UK**

Rizwan Ahmed, Mohammad Arif, Daniel Hopper, Catherine Mullarkey, Sandy Moffitt, John Watson. *Respiratory Medicine, Leeds Teaching Hospitals NHS Trust, Leeds, United Kingdom*

Background: Successful LTBI treatment (Rx) is essential in controlling TB in low incidence countries. Reported LTBI Rx completion rate in USA, Canada and UK is around 50% [1,2]. In Leeds we run an active screening programme for both new entrant and contact screening with a great emphasis on patient education and close follow-up.

Methods: We conducted a retrospective review of all the LTBI patients (excluding those starting Rx pre anti-TNF) who were offered and accepted Rx in 2009 in

Leeds. We looked at the completion rate, side effects (SE) of the Rx and reasons for not completing Rx.

Results: 184 LTBI patients were offered and accepted Rx. 89% (163/184) of the patients successfully completed the Rx.

Table 1

	Patient number	Percentage
Total number of patients	184	
Male	96	52%
Female	88	48%
Age		
Range	1 month-48 years	
Mean	25.7 years	
Median	28 years	
Source of referral		
New entrant screening	136	74%
Contact tracing	36	20%
Occupational health referral	12	6%
Treatment		
Isoniazid 6 months	28	15%
Isoniazid + Rifampicin 3 months	155	84%
Rifampicin 6 months	1	
Treatment completed (attended last schedule appointment)	163	89%

Of those not completing the Rx 38% (8/21) had moved out of Leeds and another 38% (8/21) failed to follow up without known reason, only 3 patients stopped Rx due to SE.

Conclusion: Good compliance is achievable with patient education and close follow-up. Treatment side effects of LTBI are usually mild and self resolving.

References:

- [1] Horsburgh C.R. Jr et al. Latent TB infection treatment acceptance and completion in the United States and Canada. *Chest* 2010;137(2):401-9.
- [2] Rennie T.W. et al. Patient choice promotes adherence in preventive treatment for latent tuberculosis. *Eur Respir J* 2007;30:728-735.