24. Outcomes of anti-tuberculosis treatment

E151
The relationship between extension of disease in the patients with smear positive pulmonary tuberculosis and hepatotoxicity
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Aim: Hepatotoxicity happened during the treatment is still important problem in clinic. This study was done to show the relationship between the disease extent and hepatotoxicity in the patients diagnosed with tuberculosis (TB).
Material and Method: The patients diagnosed smear positive pulmonary tuberculosis were followed for extension of disease, smear positivity rate and hepatotoxicity related to drug administration from 1st of January to 31st December 2002. The hepatic enzymes and bilirubin levels of patients were recorded in the beginning and during the follow-up. The cases who had higher levels than baseline values before the treatment were excluded the study. Radiological involvement and smear positivity rates were the base as a criterion of disease extent for TB.
Results: 57 of 74 patients taken into the study had no hepatotoxicity (%77). 17 patients showed hepatotoxicity in different levels. The treatment had to be quited in the 5 patients. There was no significant diference between radiological involvement and the increase of liver enzymes ($p>0.05$, $r= -0.028$). Also it was not found the relationship between smear positivity rates and hepatotoxicity ($p>0.05$, $r= -0.03$).
Conclusion: It couldn't be established the relationship between the extension of disease and hepatotoxicity in pulmonary TB.

E152
A series of 10 cases of TB at patients aged more than 90
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Aim: To determine clinical course of pulmonary TB in the extreme elderly.
Method: a retrospective analysis of 10 TB patients (8 pulmonary TB cases and 2 extrapulmonary TB cases – ganglionar, respectively pleural) older than 90 yrs. registered in Iasi County during 1998- 2004. All patients (7 men and 3 women) received DOTS therapy.
Results: Eight patients were new cases, 1 patient was recurrent and 1 case was defaulter. Insidious onset of symptoms was more prevalent (80% cases) and general signs included weight loss and malaise in 70% of cases. Among pulmonary TB cases (8), 1 case was smear positive and other 4 cases were culture confirmed. Two cases were multi-drug resistant. X-ray types were: cavitary- one case, miliary – one case, diffuse infiltrates – 6 cases. Bilaterally lesions were found in 3 cases. Treatment outcomes: 6 cases – success (cured and completed treatment), 3 cases died.
Conclusions: Pulmonary TB in the elderly (over 90 years) has atypical clinical and radiological signs then young patients. The treatment outcome results are different as compared to younger patients, elderly patients having a significantly higher mortality. This can be partly explained by the fact that older persons have a higher mortality rate from all causes than younger persons, especially as the life expectancy in Romania is 70 years.

E153
The results of retreatment in pulmonary tuberculosis
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A total of 38 female HIV (-) retreatment tuberculosis(tb) patients were monitored and treated in our center between June 2000 and October 2003. All of them were sputum smear positive for acid fast bacilli (AFB) and described as defaulters or relaps case having pulmonary tb. The treatment success rate was 44.7%, mortality 10.5%, failure 23.7% respectively. Eleven patients(28.9%) exhibited resistance to at least one drug.The multidrug-resistance (MDR) rate was (23.7%). The factors thought to be effecting retreatment were as follows:additional disease(15.8%), smoking(18.4%), education (55.3% elementary school and 26.3% could not read or write), drug succeptibility, cavity formation (65.8%), radiological involvement (normal/ infiltration/ pleural effusion 31.6%, bilateral infiltration/cavity/destroyed lung 68.4 Treatment succeeded in 15 of 17(88.2%) patients who were not MDR and 3 of 9 (66.7%) MDR patients. At the end of the initial phase of the retreatment seroconversion succeeded in 23 of 29 (79.3%) patients who were not MDR and 3 of 9 (33.3%) MDR patientss. Conversion to negative sputum results were statistically in association with MDR and radiological involvement. These results were discussed with the review of the literature.

E154
Splenic vein thrombosis in a patient with tuberculous pleuritis
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Hypercoagulable syndromes can lead to splenic vein thrombosis. Patients with these conditions may present with acute or subacute intestinal angina. In late stages, patients can have variceal bleeding. We report a rare case of splenic veins thrombosis in a patient with tuberculous pleural effusion. 30-year-old previously healthy man with no personal or family history of thrombosis was admitted for abdominal upper left quadran pain and fever. Ultrasound identified endoluminal echogenic images in the splenic veins (figure 1). Abdominal CT showed splenomegaly. There were no lymph nodes or liver tumor. Chest x-ray revealed left pleural effusion (figure 2).

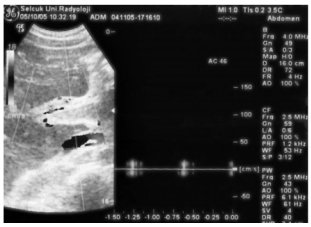

Fig. 1

Fig. 2

Evaluations of Factor V Leyden, antithrombin III, prothrombin 20210a mutation, homocysteine, proteins C and S were normal and there was no lupus anticoagulant and anticardiolipin antibody. In searching the aetiology of the thrombosis, a pleura biopsy was performed, and showed tuberculous pleuritis. The antituberculosis treatment associated with enoxaparin therapy was successful. The patient was discharged two weeks after his admission with remarkable improvement and the antimycobacterial therapy was planned to be continued for 6 months.

E155
Outcome analysis in patients with osteoarticular tuberculosis
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Backgroud and objectives Although not uncommon in the areas of the world where tuberculosis is endemic, clinical outcome of osteoarticular tuberculosis

(OATB) is largely obscure. The present study was conducted to clarify the clinical pictures including treatment and outcome of OATB.
Method Retrospectively analysed were outcome of patients who were treated for OATB between 2002 and 2004 at Kurume University Hospital.
Result There were fifteen patients, averaged 67.7±14.7 years including 9 females. Thirteen patients were over 60 years old. Eleven patients had underlying conditions, including hypertension (26.7%), chronic liver diseases (13.3%), heart diseases (13.3%). Six patients had active pulmonary tuberculosis. All patients obtained cure by the combination of surgical operation and anti-tuberculous chemotherapy. 86.7%(13/15) had no significant functional sequalae.
Conclusion OATB affects elderly and does not always accompanies pulmonary tuberculosis. Active treatment including surgery and anti-tuberculous chemotherapy can convey favourable outcome.

E156
Video-assisted thoracoscopic (VATS) major pulmonary resection and pneumonectomy in surgical treatment of pulmonary tuberculosis
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For the period 2004-2005 in surgical department of the CTRI 42 pneumonectomy and 46 lobectomy with videosupport have been performed for destructive tuberculosis. Section for VATS pneumonectomy was from 6 up to 9 sm., operations lasted about 2h.50min. with average hemorrhage 510 ml. Section for VATS lobectomy was also from 3 up to 8 sm., average time of operations was about 3h.30min., with average hemorrhage 225ml. VATS lobectomies in some cases were combined, accompanied with nodal dissection, and if necessary were supplemented with intrapleural thoracoplasty (7 cases) or moving of a diaphragm by Giller (7 lobectomy). Three patients had bilateral resections step by step. All VATS operations had no intraoperational complications, patients didn′t need any haemotransfusion, postoperative period contined with low painful syndrome and reduction of terms of postoperative rehabilitation that seems to be perspective in surgical treatment of patients with destructive pulmonary tuberculosis.

E157
Results pulmonectomy at polycavernous tuberculosis
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Pulmonectomy at polycavernous tuberculosis was made on 87 patients in the age from 20 till 45 years (men - 48, women - 39). 72,4% patients suffered tuberculosis from 1 till 3 years, 27,6% - more than 3 years. In lung are diagnosed 2-4 cavities in diameter of 3-6 sm with focal dissimination and fibrous transformation pulmonary tissue. At 11,5% in contralateral lung was available focal dissimination tubercular process within the limits of one lobe lung. At 27,6% patients the tuberculosis lung has been complicated pulmonary bleeding. Micobacteria tuberculosis in sputum are found out in 90,8% patients.
After 2-3 monthly preoperative chemotherapy and generic tonic treatments pulmonectomy was made on the right - at 27 patients, at the left - at 60. After operation pleural empyema with bronchial fistula has developed at 12 patients (13,8%), empyema without fistula - at 5 (5,7%), esophagal fistula - at 2 (2,3%).
Good results after pulmonectomy are established at 67 patients (77,0%), satisfactory - at 6 (6,9%). Lethality has come at 14 patients (16,1%) from progressing pleural empyema with bronchial (6) and esophagal (2) fistula, tuberculosis of the only thing lung and pulmonary-heart insufficiency (6).
Conclusion. Polycavernous tuberculosis lung - heavy and long disease with high frequency bacterial excretion and an inefficiency of therapeutic treatment. Pulmonectomy is one of the basic and highly effective methods of surgical treatment.

E158
Particularities of lethal outcomes among patients with tuberculosis during the epidemic
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The aim of investigation – to compire data of lethal outcomes among patients with tuberculosis in 2002-2004 ys (during the epidemic) with data of 1994 (before epidemic).
Results: autopsy coverage of deads in average was 74,72%. Verified tuberculosis increased in 3,43 foled during the epidemic. The progress of tuberculosis was the main cause of lethal outcomes (during the epidemic increased from 36,09% to 38,66%; $p < 0,05$), other cause of lethal outcomes were bodily diseases (33,72% against 30,19%; $p < 0,05$). More frequent causes of lethal oucomes were: dissiminated, fibrous-cavernous and infiltrative tuberculosis ($p < 0,05$).
Such complications of tuberculosis as lung failure (46,18 ± 1,86) % cronic cor pulmonare (41,24 ± 1,94) were main causes of death; and in patients with bodily diseases – cardiovascular pathology (33,42 ± 2,03), nonspesific respiratory diseases and oncopathology (12,97 ± 2,32); $p < 005$.
The causes of death in social unforables regions were: consumption of alcogol, narcotism, cranial traumas, suicide, violent death or accidents.

E159
Miliary tuberculosis, clinical and outcome characeristics (about 61 cases)
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Introduction Miliary tuberculosis is a potentially lethal form of tuberculosis resulting from massive dissemination of mycobacterium tuberculosis.
The objective of our study is to determine clinical and outcome characteristics of this disease in a group of Tunisian patients.
Method Medical records of 61 patients with military tuberculosis were retrospectively reviewed from 1990 to 2005 in the pneumophtisiology department of la Rabta teaching hospital.
Results 47 men and 14 women were reviewed. The mean age was 45.8 ranging from 17 to 85. Past history of tuberculosis was recognized in 11 cases. Clinical manifestations were not specific. Typical chest radiographic finding have been seen in 36%. Bacteriological proof was assessed in 43%. Extrapulmonary localizations were found out in 21 cases. All our patients received antituberculosis drugs associated to corticostroids in 21 cases. A good outcome was observed in 36 cases. Death, in 9 cases, was due to miliary tuberculosis in 4 cases.
Comment and conclusion
Miliary tuberculosis patterns have changed since 1980s. The diagnosis is based on clinical, radiological, bacteriological and outcome findings. Extrapulmonary manifestations are frequent. Although response to first-line antituberculosis drugs is good, evidence regarding optimum duration of treatment is lacking and the role of adjunctive corticosteroid treatment is unclear.

E160
Management and outcome of tuberculosis in child students
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Tuberculosis is one of the most common infectious diseases and continues as an important cause of morbidity and mortality worldwide, especially in impoverished countries. In Tunisia tuberculosis affected 19,6 /100000 and the highest incidence was observed among young adults, children were rarely affected. The aim of this prospective study is to illustrate and compare the distinctive features of tuberculosis in school students aged more than 12 years hospitalized with tuberculosis to fifty-three patients aged more then twenty years during 1996 to 2005. Fourty seven school students (20 men and 27 women) with mean age of 16,9 years are included in this study. Active pulmonary tuberculosis was diagnosed in 36 cases (76,8%) with 27 smear-positives patients. A chest radiograph revealed extensive cavity disease in 94,2% with bilateral topography in 20 cases. There is respectively 9 and 6 cases of pleural and t uberculous lymphadenitis. Close contacts of student were compiled in 38,3% of cases. All patients received antituberculous drugs and the radiological and bacteriologic outcome were favourable in most of patients. The delay of sterilisation of septum is within 24,2 days in directely microscopic examination and 80,6 days in cultures examinations.
We can conclude that tuberculosis continues to pose a major health problem specially in child students with cavitary tuberculosis who should be considered potentially infectious and screening of their contacts for infection with *M.tuberculosis* or active tuberculosis may be required.

E161
Tuberculous osteomyelitis of the mandible: two case reports
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Pulmonary tuberculosis is the most frequent form, although any kind of organs may be affected. Among the rarest forms is the tuberculosis osteomyelitis of the mandible.
First case: male patient, 17 years old, with facial fistula, which appeared after spontaneous drainage of an oral abscess. Three weeks before the first right lower molar dental was extracted. He had persisted chronicle suppuration even after a course of antibiotics. He was interned in the Maxilo-Facial Surgery Department, to be submitted to a curettage and closing of the fistula. The curettage material was sent to histological study, which revealed chronicle osteomyelitis. A posteroanterior roentgenogram reveals: nodular opacity in the right middle lower hemitorax that

was interpreted as chronicle pneumonitis. Two weeks later the patient was interned by recurrence of drainage through the reopened fistula. It is during this internment that the culture sputum was positive to *Mycobacterium tuberculosis*. The patient started the antituberculous chemotherapy with resolution of the pulmonary lesions and closing of the fistula.
Second case: male patient, 32 years old, with alcohol abuse, cough during the last three months, and lately, with mucopurulent expectoration, and a clinical detectable right purulent otitis media. He was submitted to dental right lower molar extraction, with succeeding abscess and drainage through a facial fistula. A posteroanterior roentgenogram reveals large and bilateral lesions with cavernous component. The smears were positive, with identification of the strain, which revealed *Mycobacterium tuberculosis*. In the same way as the previous case, this illness was cured after the treatment with antituberculousis drugs.

E162
Comparison of the epidemiological radio-clinical and evolutive profile of the pulmonary tuberculosis in diabetic patients and non diabetic ones
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Diabetes is an immunodepression field in favor of the development of tuberculosis mainly pulmonary. A retrospective study was carried out on 200 patients having pulmonary tuberculosis confirmed by a comparison of the epidemiologic radio-clinical and evolutive profile of the diabetic patients (group G1) and of non-diabetic ones (G2). The mean age in both groups is 50 years, with a male predominance (67%). The tuberculous counting is present in 18% of the patients in G1 vs 23% of patients in G2 (p: 0.3). Among the revealing signs, hemoptysy is predominant in G1 (42% vs 24% in G2 with p: 0.02). Radiologically, the nodulo-excavated infiltrates of the peaks predominate in both groups (68%). Whereas pneumonia is prevalent in G1 (24% vs 14% in G2 with p: 0.07) particularly in its bilobe attack (8% in G1 vs 1% in G2 with p: 0.016). In group 2, the clinical evolution is favorable after 2 months of treatment (96% in G2 Vs 82% in G1 with p = 0.001) as well as at the end of the treatment (93% in G2 vs 79% in G1 with p = 0.004). After 2 months, the regression of the radiological anomalies is noticed in 81% of G1 vs 94% of G2 (p: 0.005). At the end of the treatment, the telethorax is normal in 24% of G1 vs 33% of G2 (p: 0.15). This study concludes to a slightly significant difference of the clinical signs between the two groups, a neat predominance of extended pneumonias in diabetic patients and concludes to a clinical and radiological evolution less favorable in diabetic patients having pulmonary tuberculosis.

E163
Effect of inhaled bronchodilator therapy on the bacterioexcretion and on the quality of life (LQ) of pulmonary TB patients with concomitant lung obstructive syndrome
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We studied the effect of bronchodilator therapy on bacterioexcretion and LQ of 123 patients with pulmonary TB accompanied by bronchial obstruction. 47- with infiltrative TB (IFTB), 43 -with fibrocavitary TB (FCTB) and 33 –with post-tuberculous pneumosclerosis (PP) was diagnosed. In 65 cases we used bronchodilator therapy with inhaled M-cholinolytics and β_2-agonists (Main Group), 58 patients received teophylline per os (Control Group). All the patients with IFTB and FCTB underwent standard WHO-recommended chemotherapy. Patients of the PP Group received no anti-TB therapy. Bacterioexcretion was assessed at the study start point, and after 3 month of therapy. LQ evaluated twice (at start and finish) during the study process using SGRQ questionnaire.
Results: we determined that bronchodilator usage accelerated rates of sputum clearance in IFTB patients on 16,8%, in FCTB patients – on 14,8%. LQ in study group for IFTB patients improved on 26,9%, in control group – on 8,7%. “Symptoms” scale diminished up to 32%, “daily activity” improved for 35%, and “impact” scale of SGRQ for study group fell down up to 19,7%.
Conclusion: modern bronchodilator therapy can accelerate the rate of sputum clearance due to drainage bronchial function and due to diminishing the ability for concomitant infection to arise, in the same time improving LQ of such patients greatly.

E164
Relation between level of acute phase proteins and efficiency of treatment in patients with pulmonary tuberculosis
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Materials and methods: haptoglobin (Hp) and a_1- antitrypsin (a_1-AT) levels were measured in serum of 75 patients of pulmonary tuberculosis (PT) before and after 3 months of treatment. In chemotherapy regime in 42 patients were included izoniazid, rifampicin, pirazinamid, ethambutol and 2 reserve antibiotics (more often ofloxacin and kanamycin) (I group). 33 patients were treated with izoniazid, rifampicin, pirazinamid, ethambutol and streptomycin (II group). The control group consisted of 50 healthy volunteers.
Results: it was established that levels of Hp and a_1-AT in serum of patients with PT were higher in comparison with control group (accordingly Hp 2,54±0,2 and 1,15±0,03g/l; $p < 0,01$; a_1-AT 2,16±0,05 and 1,33±0,05 mg/ml; $p < 0,01$). After 3 months in the group I, Hp level in serum became normal (before treatment 2,53±0,2 and after treatment 1,11±0,05g/l) and a_1-AT level also was decreased, but exceeded normal (before treatment 2,16±0,05 and after treatment 1,77±0,04 mg/ml; $p < 0,01$). Levels of Hp and a_1-AT in serum of patients of the group II were decreased, but exceeded normal (accordingly Hp before 2,54±0,2 and after 1,85±0,2g/l; $p < 0,01$; a_1-AT before 2,21±0,06 and after 2,02±0,06 mg/ml; $p < 0,01$).
Conclusion: measurement Hp and a_1-AT levels in serum may be useful as objective criteria for estimation of treatment efficiency in patients with PT.

E165
Clinical efficacy of new anti-TB drug “tubelon” during complex chemotherapy in patients with first-time diagnosed destuctive pulmonary TB
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Aims: to investiigate a clinical efficacy of new anti-TB drug “Tubelon” during complex chemotherapy in patients with first-time diagnosed destuctive pulmonary TB.
Design: patients were stratified into three groups (two of them were study groups and the latter - control group) with 20 patients in each, all patients were smear-positive.all patients entered the intensive treatment phase with 4 common anti-TB drugs (isoniazid, rifampicin, pyrazinamide, ethambutol). study groups additionally received tubelon (200 and 400 mg/day shedules, accordingly). All patients were commonly examined in 3 timepoints: before the treatment, at the end of 1st and 3rd therapy months.
Results: we revealed that tubelon influences positively on clinical symptoms, has an desintoxicative, anti-inflammatory and immunostimulative effects. This in turn improves the process flow and decreases adverse reactions incidence to the chemotherapy.
Conclusion: Tubelon usage during complex chemotherapy practically dowbles efficacy therapy efficacy in view of sputum clearance, inflammation reduction and lung cavities shutting.

E166
Follow up of newly detected patients with pulmonary tuberculosis who interrupted treatment and have not treated repeatedly
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In Ukraine about 15-30% patients with newly detected pulmonary tuberculosis interrupt the treatment for different reasons. Some of them are treated with re-treatment chemotherapy course, but a lot of patients do not treat repeatedly. The aim was to study follow up treatment results in patients who interrupted the first chemotherapy course at the any terms. In retrospective study the treatment results and follow up data was analyzed in 799 patients with newly detected pulmonary tuberculosis depending of duration of chemotherapy course who treated in tuberculosis department of Institute of tuberculosis and pulmonology during 1995-2002 years. 436 (72,8%) patients completed the chemotherapy course, 163 (27,2%) patients interrupted treatment, 59 (36,2%) of them – during the first 3 months of intensive phase, 104 (63,8%) – after 3 months. Rate of effective treatment results in patients who completed chemotherapy course was 94,7% at the end of 6-8-th month of chemotherapy and 85,9% – in follow up period, nobody died. If duration of chemotherapy course was less then 3 months, rate of successful treatment results (smear conversion) was 43,9% at the moment of interruption and 23,7% of them still to be sputum negative in the follow up period, 19% patients died. If duration of chemotherapy course was 3-5 months – accordingly 70,2% and 67,3%, 2,9% patients died in the follow up period. We concluded, that patients who initially were treated less than 3 months have a poor prognosis. The main reason of treatment interruption is alcohol abuse.

E167
Efficacy of standard 1-st category regimen of chemotherapy in patients with smear positive destructive pulmonary tuberculosis in Chernigovskaya oblast, Ukraine
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In the period of DOTS implementation in Ukraine are studied efficacy of standard regimen of chemotherapy in patients with newly detected tuberculosis who had no previous history of treatment. In retrospective clinical study for the period 2002-2004 years we analyzed treatment results in 342 patients with newly detected pulmonary smear positive pulmonary tuberculosis, who were treated with standard 1-st category regimen (2HRZE(S)4HR) under direct supervision. We included in

this study patients with high adherence level who completed the treatment. Patient who interrupted the chemotherapy course were excluded from analyze. Most of patients (62,3%) had extended cavitary disease with large cavity (4 cm) – 35,2% or several cavity with different size – 27,1%. Pulmonary lesions were bilateral and diffuse in 79,2% patients. At the and of standard duration of intensive phase (2 months) smear conversion was achieved in 52,6% patients. After 3 months of treatment with intensive phase smear conversion was in 64,6% patients. At the start of 5-th month of treatment 35,7% of patients were failed and started the retreatment course. Primary drug resistance was revealed in 13,5% of patients, included multi drug resistance in 3,5% cases and polyresistance – in 4,4%. Drug resistance and large cavitary lesions occurred in high ratio with treatment failure (respectively OR 4.0, 95% CI 1.6–9.9 and OR 3.2, 95% CI 1.34–7.6). We conclude that 4-component standard regimens have insufficient efficacy in high burden countries where are a lot of patients with primary drug resistance and extended cavitary disease.

E168

The rational chemotherapy of new smear-positive lung tuberculosis with extended cavitary disease

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Aim: to study the treatment efficacy of new smear-positive lung tuberculosis with extended cavitary disease. 165 patients were examined. Patients were divided into 2 groups. The patients of first group consisting of 109 patients was applied 4 antituberculosis drugs at the initial phase of chemotherapy (HRE(S)Z), the second group (56 patients) – 5 (HRSZE) under direct supervision. The cure in all patients was observed in 67,3% cases, the treatment failure – in 21,8% cases, the default – in 10,9% cases. Relapses after the cure was observed in 18,2% cases. The drug resistance before the treatment was revealed in 35,8% cases at the first group and in 35,7% cases at the second group, including multidrug resitance in 8,5% patients ($p>0,05$). The cure was observed in 58,7% cases of the first group and in 83,9% cases at the second group; the treatment failure – accodingly in 29,4% and 7,1% cases; the default – in 11,9% cases and 8,9% cases. The secondary drug resistant developed in 9,2% cases of the first group and in 3,6% cases at the second group ($p<0,05$). Relapses after the cure was observed in 27,3% patients of the first group and in 4,5% patients at the second group ($p<0,05$).
Conclusions: Our investigation demonstrates that the using 5 antituberculosis drugs at the initial phase of chemoteraty can provide good short- and ling-term results for those patients: the cure was observed in 83,9% cases and relapses after the cure – in 4,5% of patients.

E169

An analysis of cases diagnosed with tuberculosis

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Pulmonary tuberculosis is an important health problem in worldwide and our country. We analyzed retrospectively our patients diagnosed with pulmonary and pleurisy tuberculosis (TB) in last four years. All cases were on military duty. 1231 cases were found from file records. The cases diagnosed with multidrug resistance tuberculosis were not included to the study. The age, period of military duty, habit of smoking, radiological appearances, diagnosis, bacilli conversion, hospitalization period and cure levels of all patients were recorded. The mean age of cases was 21.71 ± 2.81 (20-55). Many patients (61.3%) were smear positive pulmonary TB. Of 4.1% was relaps. Cavity in chest roentgenograms was seen in 46.6% of case. Bacilli conversion time was 24.81 ± 16.56 (14-135) days. Cure and treatment completion rates were 66.5% and 24.7%, respectively. There was a positive correlation between cavity, radiological dissemination and bacilli conversion. Smoking was not related to cavity and bacilli conversion. But there was a positive correlation between smoking and radiological dissemination.
Considering to last four years, treatment success of our center was in satisfied level.

E170

Tuberculosis of the thoracic wall: a ten years series

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The thoracic wall tuberculosis is an uncommon localization for tuberculosis accounting for 1 to 5% of all cases of bone and joint tuberculosiswhich themselves account for 15% of all extra pulmonary tuberculosis.
We reviewed 7 cases of thoracic wall tuberculosis during 10 years (0, 7%). The main age is 39 years (24-72). 5 men and 2 wemen. No previous history of tuberculosis was noted and no patient was immunocompromised.
In our 7 cases, the revealing symptoms were palpable chest wall mass and pain. A pus discharge was found in 4 cases. These symptoms are associated with cough and hemoptysis in one case.
Difficult diagnosis situation was the reason of the long duration of hospitalization with a mean of 51 days (20-90). In fact, mycobacterium tuberculosis was isolated from culture of pus in 3 cases. Histologic examination showed granulomatous mononuclear and giant cells with necrotic caseum in only one case. The fourth patient had concomitant active pulmonary tuberculosis and an other had concomitant tuberculosis spondylitis with discitis with typical aspect in MRI. In the last case diagnosis were performed after a favourable response to antituberculosis treatment.
All patients had cold abscess of soft tissues (Muscle in 2 cases). It was associated with bone localisation (rib, sternum and clavicle) in 3 cases.
Treatment is based on long duration multi drug therapy (12-15 months) and drainage. Cure was achieved in our 7 cases.
These observations demonstrate the difficult diagnostic situation presented by thoracic wall tuberculosis.

E171

Management of endobronchial tuberculosis. Report of 11 cases

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Endobronchial tuberculosis is defined as tuberculous infection of the tracheobronchial tree with histological evidence. It has become an exceptional finding often in misleading context.
The aim of our retrospective study was to characterize clinical, radiological, microbiological, bronchoscopic and therapeutic features of endobronchial tuberculosis.
Between 1997 and 2005, eleven patients were diagnosed as having endobronchial tuberculosis in our department.
There were four men and seven women with a mean age of 44.9 years.
Cough was the most common complain. Main symptoms were as follow: fever in 9 cases, weight loss in 4 cases, chest pain in 2 cases, dyspnoea in 2 cases and haemoptysis in 3 cases.
Signs of airway obstruction were rare, localized wheezing was found only in one case.
Only two patients had positive sputum smear and two others had positive bronchoscopic aspiration for acid fast bacilli.
Chest X rays showed condensation in five cases and atelectasis in six cases.
Bronchoscopic results showed granulomatous lesions in 3 cases, ulcerative lesion in 1 case, polypoid mass in 4 cases, submucosal infiltrative appearance in 3 cases, fibrostenosis in 3 cases and hyperaemia-oedema in 3 cases.
The diagnosis of endobronchial tuberculosis was confirmed by pathology examination of bronchial mucosa biopsy in ten cases and the other one by surgery.
All cases were treated by combination chemotherapy with isoniazid, rifampicin, pyrazinamide, streptomycin or ethambutol.
Corticosteroid therapy for prevention of bronchial stenosis was prescribed in two cases. The duration of treatment ranges between 8 to 18 months.
Nine patients healed without sequelae, two patients have moderate cicatrical stenosis.

E172

Haemoptysis: aetiology, outcome and treatment

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Haemoptysis is a commun respiratory and alarming symptom that always requires investigation. Its severity varies from bloodstrained sputum to life-threatening haemoptysis. The management depends upon to the aetiology.
We prospectively evaluated 100 women patients with haemoptysis admitted in our chest departement for 3 years (2003 to 2005).
The annual incidence of haemoptysis was 18% of the unit's admissions.
The mean age was 53,7 years (range from 17 to 83 years).
Two thirds of patients have bloodstrained sputum and only 3% of them have life-threatening haemoptysis. Bronchoscopy have localized the site of bleeding in only 11% of cases.
The chest X-ray was judged abnormal in 93% of cases and CT scan showed lesion in 58% pf patients. The main aetiologies of haemoptysis were active or inactive pulmonary tuberculosis (30%), bronchiectasis (28%) and acute pneumoniae (14%). Other causes included pulmonary aspergilloma, bronchogenic cancer and COPD. In 5% of cases, we conclude that haemoptysis was idiopathic.
All patients received medical treatment and only one patient underwent bronchial arteriography with embolisation. Surgery had no indication.
32% of patients had reccurent haemoptysis at 1 year follow-up.
We conclude that pulmonary tuberculosis remains one of the main causes of haemoptysis in women in Tunisia.
The outcome of haemoptysis is generally good, with a low mortality and reccurence rate.

E173

Short outcome and evaluation of hemoptysis in patients with old pulmonary TB

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Objective The objective of this study is to evaluate the short outcome of the patients with hemoptysis due to old tuberculosis and also the relation of the severity of hemoptysis with length of stay (LOS) in hospital.
Materials & Methods: 45 patients with old T.B. and cardinal sign of hemoptysis were evaluated and after excluding the mycetoma and suggestive tumor formation, the coefficient correlation between the severity of hemoptysis and the LOS and also the correlation of the severity of hemoptysis and different pictures of pulmonary lesions in C.T. scan were evaluated with Spearman's rho statistical analysis.
Results All patients were discharged from the hospital. One patient had undergone bronchial artery embolization. Pulmonary resection had been performed in none of the patients.
There were significant correlation between age and the first evidence of residual T.B. in the lung paranchyma (P=0.00, Spearman rho 0.00) and also between severity of hemoptysis and pulmonary lesions in CT scan at the level of 0.05; but no correlation was observed between the LOS and the severity of hemoptysis (P=0.0769)
Discussion & conclusion This study shows that there is no significant correlation between LOS and the severity of hemoptysis but significant correlation was found between the age and the first evidence of residual TB infection in the lung parenchyma (The Interval). This is probably due to lung fibrosis and scarring caused by a prolonged inflammatory process which has led to an increase in vascular anastomosis. In old T.B. the source of bleeding is usually brochiectatic lesions which are directly correlated with the radiologic features found in chest x ray.

E174

Surgical management of bronchiolithiasis due to tuberculosis with hemoptysis

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Introduction: Bronchiolith is often seen after chronic granulomatosis diseases such as tuberculosis and hystoplasmosis and leads to a wide spectrum of signs and symptoms; including hemoptysis which often needs surgical management. The goal of this study is evaluation of surgery in patients with tuberculosis bronchiolith who present with hemoptysis.
Material & method: In this study patients with tuberculosis bronchiolith whom have been operated on between 1991 and 2005 and their follow-up period was at least 6 months and at most 9 years were included and have been studied about age, sex, clinical symptoms, diagnostic methods, type of surgical treatment, complications and mortality rate.
Result: Overall 5 patients have been studied. ($^{M}/_{F}=^{2}/_{3}$, mean=31 y), 40% with sever and 60% mild to moderate and recurring hemoptysis, lesion at left in 80% and at right in 20%, in 60% of patients some degrees of bronchiectasia were seen, in 80% the lesion was visible in bronchoscopy and endoscopic removal of lesion failed in all. 60% of patients underwent pulmonary resections and in 40% bronchiolithotomy have been done. In follow-up, patients with pulmonary resection have had no problem till now, but in patients with bronchiolithotomy due to occurring late bronchiectasia, re-operation and pulmonary resection was inavoidable. There was no mortality.
Conclusion: We recommend surgery in all patients with tuberculosis bronchiolith and our recommendation is pulmonary resection distal to lesion and saving as much of parenchyma as possible. Bronchiolithotomy should be done only in patients in whom pulmonary resection is not technically possible.

E175

Outcomes of tuberculin skin test positive children found in school tracings performed by Sivas Tuberculosis Dispensary, Turkey

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We evaluated the outcomes of tuberculin skin test (TST) positive children. Tests were performed by Sivas Tuberculosis (TB) Dispensary for the purpose of teaching the primary health centers personnel for testing and vaccination of school children. Dispensary's registers of patients and of drugs used were evaluated whether TST positive children were received either anti-TB treatment or prophylactic treatment. Of 4697 children in first classes of 45 schools in Sivas tested during vaccination applications between 1998 and 2001 by Sivas Tuberculosis Dispensary, 251 children (5.34%) were found TST positive. Among children with positive TST result (n=251), 27 were received prophylactic treatment (isoniazid alone) and another 5 children were received anti-TB treatment (isoniazid plus at least one major anti-TB drug). We could not find any knowledge in the Dispensary's registers about remaining 219 children (87%).
Eleven out of children receiving prophylactic treatment (n=27) had visited Dispensary only once. Number of children receiving prophylactic treatment for 6 months or more was only three. Only one out of 5 children whose given at least two major drugs for treatment was in register.
These results suggested that Dispensary could not follow-up TST positive children found in school tracings in our region. It can be considered that family follow-up could also hardly carry out.

E176

Surgical treatment of bilateral destructive tuberculosis of lungs

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A total of 65 patients (48 males and 17 females) in ages between 20 and 40 have got surgical treatment for bilateral destructive lung tuberculosis. 51 patients were diagnosed as having bilateral fibre-cavernous lung tuberculosis; 6 - fibre-cavernous lung tuberculosis on one side and tuberculoma on other side; 1 - fibre-cavernous lung tuberculosis on one side and pleural empyema on other side; bilateral tuberculoma was diagnosed in 7 patients. Bacteria of tuberculosis have been detected in 47 patients' phlegm.
65 patients had 130 operations (129 partial lung resections and 1 pleurectomy), of them 18 patients had single-stage bilateral resections, 47 - two-stage resections performed in the interval of 2-3 months. In total, bilateral segmental resections were performed in 39 patients, bilateral lobectomy - 9, segmental resections on one side and lobectomy on other side - 9, lobectomy on one side and pleurectomy on the other side - 1.
Good results have been achieved in 62 patients (95.3%). 3 patients (4.7%) died from postoperative pneumonia and cardiopulmonary decompensation. In 3-10 years after operations were performed, clinical recovery from tuberculosis was confirmed in 60 patients (98.4%) out of 61 observed ones.
Conclusion: Bilateral partial lung resections are an effective method of treatment. Consecutive operations with the intervals of 2-3 months are the basic and the safest method of surgical treatment.

E177

Outcomes of children sent to Tuberculosis Dispensary from other hospitals for tuberculin skin test

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The aim of this study was to evaluate the results of tuberculin skin tests (TSTs) and outcomes of children aged between 0-16 years old sent to dispensary from other hospitals for TST in Sivas, Turkey. Information obtained from TST and vaccination registers between June 1997 and December 2001 were compared with data obtained from patients and drugs registers.
In TST and vaccination registers, the number of children aged between 0-16 years old with labelled as H for being sent from hospital was 1339. Twenty-one children were excluded from study because of deficient data. Therefore 1309 children were included.
Only 240 (46.7%) out of 514 children with TST values 5 mm or less were vaccinated in Dispensary.
The number of TST positive children in total 1309 was 210 (16%). In Dispensary registers, neither prophylactic treatment nor anti-TB treatment can be found for 168 out of 210 TST positive children. According to registers, twenty one children (10%) had received prophylactic treatment and another 21 children had received anti-TB treatment. Thirteen children received prophylactic treatment and 12 children received anti-TB treatment were given drugs by Dispensary for less than 6 months.
These findings suggested that our regional dispensary did not properly follow-up TST positive children sent for TST from other hospitals.