Postantibiotic effect (PAE) is the persistent suppression of bacterial growth after an exposure to an antibiotic. PAE is well established in Gram negative bacteria when exposed to aminoglycosides. In the treatment of tuberculosis, a minimum duration of 6 months therapy is usually required. Circumstances such as infection by multi-drug resistant tuberculosis, the course can be much more prolonged. Moreover, the use of 2nd line therapy need to be considered. To improve compliance and treatment outcomes, effective and convenience dosing regimen is required. Analysis and acid-fast staining, they had been cultured in Lewenstein-Jensen medium. After isolation of mycobacteria by differential tests such as niacin, nitrate reduction, aryl-sulfatase, catalase, urease, pyrazinamidase, susceptibility to TCH, tween hydrolysis, tellurite reduction, tolerance to 5% NaCl, rate of growth and pigmentation (dark-light), their antibiotic resistance and susceptibility were studied. Other bacteria were identified by staining and culturing in different media as standard methods.

Results: Among 88 samples, 3 mycobacteria isolated (3.4%); out of these 3 proved agents cases. 1 M. chelonae (Rapidly growing) 2 cases M. scrofulaceum Antimycobacteria susceptibility test to INH, SM, RMP EMB, KM, THA were done. E. coli (41% 0 and S. Coagulase negative (38%) were isolated.

Conclusion: Since atypical mycobacteria exist in soil, and some of cases from these bacteria have been isolated in Iran, therefore, isolation of them from person especially children after a disaster such as earthquake is important.

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42.003
Postantibiotic Effects of Linezolid and Gatifloxacin against Mycobacterium tuberculosis
1 Chinese University of Hong Kong, Hong Kong SAR, China
2 Grantham Hospital, Hong Kong SAR, China
3 Dept of Health, Hong Kong SAR, China

Postantibiotic effect (PAE) is the persistent suppression of bacterial growth after an exposure to an antibiotic. PAE is well established in Gram negative bacteria when exposed to aminoglycosides. In the treatment of tuberculosis, a minimum duration of 6 months therapy is usually required. Circumstances such as infection by multi-drug resistant tuberculosis, the course can be much more prolonged. Moreover, the use of 2nd line therapy need to be considered. To improve compliance and treatment outcomes, effective and convenience dosing regimen is required. Analysis of pharmacokinetic profiles of new agents would be useful to achieve this aim. Therefore, PAEs of linezolid and gatifloxacin, alone and in combinations against Mycobacterium tuberculosis were studied. Linezolid (10 mg/L) and gatifloxacin (3 mg/L) gave relatively short PAEs of 4.0 and 8.8 h, respectively. The combinations of linezolid plus gatifloxacin, gave PAEs of 5.3 h. The results suggest that linezolid may require twice-daily dose as part of an anti-tuberculous regimen. This might have implication in the dosing regimen, as many antituberculous drugs are taken on a once daily basis.

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42.004
Spinal Tuberculosis: A Major Public Health Hazard in Isfahan
F. khorvash 1, A.A. Javadi, A. Emami Naeni
Infectious Research Center, Medical University, Isfahan, Iran (Islamic Republic of)

Background: Tuberculosis remains a major public health hazard, especially in developing countries. Vertebral tuberculosis is the most common form of the skeletal tuberculosis. The purpose of our essay is to review spinal tuberculosis in three hospitals in Isfahan, Iran.

Methods: We carried out a cross sectional study of 630 patients with tuberculosis and identified 100 patients with spinal involvement in the three hospitals Medical School in Isfahan. Tuberculosis was diagnosed on the basis of one of a compatible clinical picture. A radiographic study of the spine with suspicious signs and skin tested were performed for each patient. Demographic data, sign, symptoms and site of spinal involvement were recorded. In all patients we took a chest x ray and sputum smear and culture for ruling out of pulmonary tuberculosis. The data obtained were analyzed by SPSS.

Results: Out of the 100 patients with spinal tuberculosis, 58% were male and 42% were female. Main symptoms were spinal deformity, local tenderness and neurologic deficits. Fever and constitutional symptoms were in 80% of cases. Only 68% had a positive tuberculin skin test. 3% involvement were the upper thoracic spine, 23% the lower thoracic spine, 69% also the lower thoracic, T12 and upper lumbar spines, (thoracolumbar) and 5% the cervical spine. 20% developed Para spinal abscesses. Only 18% of patients had pulmonary involvement. 40 cases underwent bone biopsy that 25% had a positive smear, whereas 62.5% had a positive culture. Histologic findings suggestive of tuberculosis involvement of the bone were found in 37 of the 40 biopsies. The most commonest age for spinal involvement were 20—40 years (p < 0.05). There were no differences between age and sex with site of spinal involvements. In 50% cases adjunctive surgical therapy were used.

Conclusion: Spinal tuberculosis may be missed in patients with no evidence of pulmonary. No pathognomonic imaging signs allow tuberculosis to be readily distinguished from other conditions. A history of chronicity and slow progression is suggestive of tuberculosis. Only biopsy can achieve a provide diagnosis.

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42.005
Application of Commonly Used Acute Phase Response Parameters in the Assessment of Treatment Response in Bangladeshi Pulmonary Tuberculosis Patients
S. Islam 1, M.D. Hossain, M.S.R. Khan, M.Z. Islam, M.A. Hasanat, M.M. Rahman
National Institute of Diseases of Chest and Hospital, Dhaka, Bangladesh

Background: The main objective of the study was to elucidate the early resolution of acute phase response
Nontuberculous Mycobacterial Diseases in North-Western Greece over Six-Year Period (2000–2005)

S. Levidiotou1,∗, G. Vrioni1, C. Pappa1, H. Gessouli1, C. Gartzonika1, D. Stafanou2, S. Andronikou3, S. Constantopoulos4

1 Department of Microbiology, Medical School, University of Ioannina, Ioannina, Greece
2 Department of Pathology, Medical School, University of Ioannina, Ioannina, Greece
3 Department of Child Health, Medical School, University of Ioannina, Ioannina, Greece
4 Department of Pneumonology, University Hospital of Ioannina, Ioannina, Greece

Nontuberculous mycobacteria (NTM) are emerging pathogens increasingly associated with chronic pulmonary disease. The purpose of the study was to determine the prevalence of NTM infections in NW Greece. A total of 57 NTM strains isolated from consecutive patients were analyzed during 2000–2005 period. All the isolates were identified using a reverse hybridization molecular assay (GenoType Mycobacteria, Hain Lifescience, Germany). The isolated species were: 30 M. gordonae, 6 M. avium, 8 M. fortuitum, 6 M. chelonae, 3 M. marinum, 2 M. xenopi, 2 M. celatum and 1 M. peregrinum. M. gordonae isolates were considered as environmental contamination. The remaining, except all strains of M. chelonae and M. marinum, were repeatedly isolated from respiratory specimens. M. chelonae strains were isolated from corneal scrapings and M. marinum strains were isolated from skin lesions. All patients were HIV-negative and the majority had chronic respiratory disease. NTM isolates were considered as pathogenic and patients received appropriate treatment.

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42.006

The Impacts of Internal and External Factors for Compliance of Pulmonary Tuberculosis Treatment in Jember District, East Java, Indonesia

E. Suswati∗, S. Syaf

Medical Faculty, University of Jember, Jember, Indonesia

Keywords: Internal factors; External factors; Compliance; Pulmonary Tuberculosis treatment

Objectives: To identify the impacts of internal and external factors for compliance of pulmonary Tuberculosis treatment and to identify the general characteristics of patient in Jember district, East Java, Indonesia.

Subjects and methods: All patients with Tuberculosis registered for treatment from January 1st 2006 to December 31st 2006 were included in the study. Information was extracted from their medical records and questionnaires were investigated. Data gathered included internal (sex, age, education, income per family member, knowledge, and occupational) and external (health servicers, drug regiments, residence and health service distance, and family’s compassion) factors. Data analysed with Log Regression Analysis, α = 0.05.

Results: There were 100 patients for analysis. Patients aged over 45 accounts for 39%, 30–44 years old (37%), less than 30 years old (24%). Womens accounts for 56% and mens as much as 44%. Among the analysed patients, educational status high (0%), medium (29%), and low (71%). Knowledge status were high (32%), medium (54%) and low (14%). Occupational were listed, and among them were farmer workers (75%), private sector workers (20%) and others (5%). Income per family member included high (1%), medium (47%) and low (52%). The quality of health servicers were good (36%), medium (58%) and low (6%). There were different types of drug regiments affected the patients, listed as good (74%), medium (14%) and bad (12%). The residence and health service’s distance were near (42%), medium (28%) and far (30%). Family compassion also affected the compliance, listed as good (63%), medium (34%) and bad (3%). From all the patients analysed, compliance’s percentage accounts for 59% and the other 41% stands for lack of compliances.

Conclusion: Internal factors (education and income per family member) statistically impacted the compliance of pulmonary Tuberculosis treatment.

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Methods: This prospective study was conducted in the National Institute of Diseases of Chest and Hospital, Dhaka from January 2006 to December 2007. Total 272 consecutive patients were enrolled. Six parameters of acute phase response- blood C-reactive protein, hemoglobin, ESR, body weight and anorexia were evaluated weekly for the first month and lastly at the end of the second month, and body temperature were recorded daily for the first two months of anti-tubercular treatment. Chi-square test, unpaired student’s t test and paired student’s t test were used for statistical analysis.

Results: At the end of 2nd week, the mean CRP concentration approached to a level of 43.30 ± 18.46 mg/L with mean percent improvement 10.39% and the resolution was statistically significant (p < 0.05). The mean body temperature also resolved significantly (p < 0.05) at 2nd week and by 2 week 43.4% patients became afebrile. The hemoglobin improved significantly over the baseline value at 3rd week of treatment (mean ± SD: 9.62 ± 1.03 vs. 9.94 ± 0.99 gm/dl). On contrast, ESR, body weight and anorexia were slower to resolve and their resolutions were statistically insignificant (p > 0.05) even after 1 month of treatment. In addition, in this study, association of older age, lower socioeconomic status, prolonged duration of fever, poorer nutritional status, and low initial hemoglobin and high initial ESR values produced delayed response to treatment. ConclusionBlood CRP, blood hemoglobin and fever should be used as the monitoring tools for the effective response to anti-tuberculosis drugs, particularly in the evaluation of empiric trials of treatment so that they can be used as the monitoring tool.

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