Determinants of Treatment Cessation Among Pulmonary Tuberculosis Patients in Khorassan Province of Iran

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Background: Recognizing of factors involved in the cessation and interruption of a disease like tuberculosis are important and can help us to improve the treatment strategy and educational status of the patients. We assessed the causes of treatment cessation in the patients suffering from pulmonary tuberculosis referred to the tuberculosis Center No.2 in Khorasan Province of Iran during the years March 2003 to March 2005.

Methods: A descriptive and retrospective study of casesheets of all pulmonary tuberculosis’ patients who were referred to the Mashhad Health Center No. 2 during the years 2003 to 2005 and the variables like age, sex, nationality, outcome of treatment and causes of treatment cessation and interruption were presented with descriptive statistic.

Results: The total number of the patients were 659. Of these patients, 534 (81%) were smear positive and 125 (19%) were smear negative. Among the 534 smear-positive patients, 43 (8%) have treatment cessation and interruption. The reasons of treatment interruption were mortality due to T.B in 20 patients (3.7%), drug induced hepatitis in 11 (2%), premature sensation of wellbeing in 2 (0.37%), Hearing problems and vertigo in 2 (0.37%), multi drug resistance (MDR) tuberculosis, in 2 (0.37%), purpura in 1 (0.2%), and exacerbation of renal failure in 2 (0.37%). 438 cases (82%) had total cure.

Conclusion: Observation supported the effectiveness of directly observed therapy short course (DOTS) strategy, with first line therapy. The causes of treatment cessation and interruption like drugs’ induced hepatitis and premature sensation of wellbeing can be controlled by increasing the awareness of patients about the severity of T.B disease. Efforts to improve patients’ understanding of TB disease and related treatment issues may be an important TB control program strategy and should be emphasized at the initiation of therapy and at intervals throughout the treatment course to minimize treatment interruption.

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Multifocal Tuberculous Spondylitis Caused by Multi-drug Resistant Tuberculosis in a 15-year-old Boy

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A 15-year-old boy presented to the Orthopaedic Department for neck, thoracic and back pain for 6 weeks. The pain progressively worsened and caused difficulty in walking and sitting. His had significant constitutional upset. Examination revealed tenderness and decreased range of movement over the lower cervical spine region and thoraco-lumbar junction. There was no motor or sensory deficit. MRI of the cervical and thoracic spine showed erosion of the anterior vertebral body from C5 to T1 level with paraspinal soft tissue swelling from C4 to T1 level which was compatible with tuberculous spondylitis. Imaging also showed extensive involvement of the thoracic and lumbar spines with paraspinal soft tissue involvement and left psoas abscess formation. Blood tests revealed hypochromic microcytic anaemia, raised ESR and CRP. He was empirically treated with standard antituberculous drugs. Anterior spinal fusion of C7 to T1 level was performed. Despite treatment he had persistent swinging fever. A second operation was performed which consisted of thoracotomy and drainage of the abscessed at T7 and the left psoas. Central line was also inserted for administration of drugs and TPN. Pus and granulation tissue collected yielded large number of AFB and PCR was positive for Mycobacterium tuberculosis (MTB) complex. Formal susceptibility testing of the MTB isolate later confirmed multi-drug resistant tuberculosis with resistance to isoniazid, rifampicin, streptomycin and ethambutol while susceptibility testing showed sensitivity to most agents except ofloxacin. Immune function screening showed normal findings. He was HIV negative. The treatment was change to levofloxacin, prothionamide, para-aminosalicylic acid, cycloserine, linezolid and amikacin. In conclusion, tuberculous spondylitis should be considered in any patient who presented with neck pain, back pain and constitutional upset. Prompt isolation of the AFB with susceptibility test for detection of drug resistance is vital to the clinical management. Immune function disorder should be considered in individual case.

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