NUTRITIONAL ASSESSMENT UPON ADMISSION FOR PREDICTING DELAY IN NEGATIVE BACILLARY CONVERSION AMONG PATIENTS TREATED FOR PULMONARY TUBERCULOSIS

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Abstract Negative conversion of pulmonary tuberculous bacilli is determined by using a discharge standard. The primary goal of tuberculosis treatment is early negative conversion of bacilli. Nutritional factors upon admission that might predict a delay in negative bacillary conversion were investigated.

The study cohort comprised 554 inpatients who were treated for pulmonary tuberculosis between April 2005 and March 2007 at the National Hospital Organization Kinki-chuo Chest Medical Center. Factors that might delay negative conversion that were investigated included: age, sex, body mass index (BMI), serum albumin (Alb), C-reactive protein (CRP), hemoglobin A1c (HbA1c), hospital meal intake, percent of recommended dietary allowance of energy (RDA % energy), percent of recommended dietary allowance of protein (RDA % protein), and sputum smear test. Variables were entered into a univariable log-rank test and multivariate regression analysis was performed.

Univariate analysis yielded the following hospitalization nourishment factors associated with a delay in negative conversion: male gender, BMI $<18.5 kg/m^2$, Alb $\leqq 3.0 g/dL$, CRP $\geqq 0.3$ mg/dL, HbA1c $\geqq 6.5\%$, RDA % energy $<87\%$, and sputum smear test 2＋～3＋. Multivariate regression analysis yielded the following hospitalization nourishment factors that were associated with a significant delay in negative conversion: HbA1c, CRP, and BMI. Nutritional assessment of patients with pulmonary tuberculosis indicated that HbA1c, CRP, and BMI could be used to predict a delay in negative conversion.

Key words: Pulmonary tuberculosis, Negative conversion of bacilli, Nutritional assessment

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DRUNKENNESS CAUSED BY ISONIAZID IN A TUBERCULOSIS PATIENT WITH EXTRAPULMONARY LESIONS ON HEMODIALYSIS: A CASE REPORT

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Abstract The patient was a 55-year-old man who had been on hemodialysis for 6 years for diabetic nephropathy. He was clinically diagnosed with pulmonary tuberculosis with extrapulmonary lesion after 3 years of chronic fever. His fever subsided immediately after the beginning of antituberculosis drug therapy and the antituberculosis drugs were discontinued 3 days after the initiation of the therapy. He experienced a sense of drunkenness when he received isoniazid, apparently not in association with any of the other antituberculosis drugs given. His blood trough concentration of isoniazid was nearly equal to the usual peak levels measured in patients with normal renal function. Isoniazid is often prescribed for patients with chronic renal failure without dose-reduction, because of its hepatic metabolism. But blood level of INH was found to accumulate at high levels in this patient. The high blood concentration of isoniazid in this patient with chronic renal failure may have elicited his neurological side effect.

Key words: Isoniazid, Drunkenness, Tuberculosis, Chronic renal failure

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