Effective factors of treatment outcome in smear positive tuberculosis patients in Golestan province-Iran (2014)

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Abstract

Background and Objective: Tuberculosis (TB) is the main cause of death in the world. Half of the patient eventually will die during first 5-year of infection if they do not receive suitable treatment. According to WHO’s report, treatment success in Iran is lower than the regional and global mean. This study was conducted to identify the effective factors of treatment failure among tuberculosis patient in golestan province- Iran.

Methods: This cross- sectional study was conducted on 331 new smear positive tuberculosis patients that detected in TB laboratory in in golestan province-north of Iran during 2014. Inclusion criteria included weight more than 30kg, age greater than 13 years, diabetes, immune deficiency, liver or kidney diseases. Patients were treated according to a protocol for a period of two months on the DOTS strategy. The criterion of treatment outcome was sputum smear at the end of the second month of treatment. The effect of gender, medication regimen, age, weight, smoking, addiction and severity of smear basilli load on treatment outcome was assessed.

Results: 50.8% and 49.2% of patients were treated with combination and separate medicinal regimens, respectively. The conversion rate of smear positive was 67.7% at the end of the second months. According to multivariate logistic regression, the age of the patient (95% CI: 0.96-0.99, OR: 0.98, P=0.017), addiction (95% CI: 1.26-4.54, OR: 2.4, P=0.008), ethnicity (95% CI: 1.86-7.02, OR: 3.62, P=0.0001) and diagnostic smear bacilli load (P<0.0001) were the important effective variables.

Conclusion: The success of two months treatment was fairly low and the important factors on treatment success during the intensive phase were patient age, smoking, addiction and diagnostic smear bacilli load.

Keywords: Tuberculosis, Smear positive, Treatment success, Ethnicity, Addiction, Age

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