

Abstract

Outcomes of Patients Presenting with Central Nervous System Tuberculosis at a Tertiary Care Center in India

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ABSTRACT

Background: Tuberculosis is a major public health problem in India. Ten percent of all patients with tuberculosis (TB) have CNS involvement. Delayed diagnosis of this disease is associated with increased mortality. This study assesses the socio-demographic profile as well as outcomes in patients with various forms of CNS TB.

Methods: A prospective observational study conducted at V.S. Hospital, Ahmedabad, between December-2016 and February-2018. Each patient was assessed from admission to 3- month follow up. The diagnosis of Tuberculous Meningitis (TBM) and tuberculoma was done as per the Ahuja and Rajashekhar criteria, respectively. Neurological status and functional outcome were graded based on modified Rankin score (mRS).

Results: Our study had 56 patients with a mean age of 35.01 +/- 11.46 years. We observed that increasing age was associated with higher mRS ($p=0.002$). Fever was the most common symptom in patients with TBM (96. 15%), unlike seizures (100%) in patients with tuberculomas with or without TBM. Patients with either isolated TBM or tuberculoma had improvement in outcomes. On multivariate analysis, it was found that CN palsy ($HR=0.38$, $p = 0.003$), duration of illness ($HR=0.35p = 0.005$) and age ($HR=0.33$, $p = 0.008$) were the most significant predictor of worse outcomes.

Conclusions: Identification and evaluation of focal signs like seizures and focal neurological deficits along with certain non-focal signs like headache and fever should raise high level of suspicion for TB in tropical regions at the primary care levels for early diagnosis and treatment.

Keywords: CNS tuberculosis, Tubercular meningitis, Tuberculoma, Tuberculosis

Abbreviations

TB: Tuberculosis; TBM: Tuberculous Meningitis; mRS: modified Rankin Scale

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