

## Importance of nutritious diet in the treatment of Tuberculosis

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Tuberculosis (TB) is a public health problem that infects millions of people worldwide with a very high mortality rate [1,2]. The overall health of a TB patient in most cases is poor. These debilitated TB patients are mostly from the underprivileged sections of society and are generally devoid of nutritious diet in addition to lacking the proper dietary advice from the expert dieticians [3]. Besides, in developing countries like India, where the budget on healthcare is meager, the availability of free antitubercular drugs is considered mostly as the solution of the problem. However, in the absence of proper and adequate nutritious diet the treatment of TB becomes less efficient with a higher rate of treatment failure, relapse, development of drug resistance TB or in some cases deaths [3,4]. Also, nutritious diet is important for the physically weak patients in order to adhere to antitubercular treatment (ATT) as the pill burden is very high and the antitubercular drugs have a number of side effects [5]. The lackluster attitude of authorities and healthcare staff in regards to the nutritional supplements or dietary advice to TB patients is really alarming.

As per the WHO, India is a high TB burden country so being an endemic country the role of dietary advice to the majority of socially and economically poor TB patients is of prime importance. Malnutrition is directly proportional to TB treatment outcomes [3]. Both, protein-energy malnutrition and micronutrient deficiencies are evident in TB patients, which put the outcome of the long ATT in jeopardy and increasing the chances of morbidity and mortality [3,6].

The present situation in India demands radical improvements with an emphasis on the nutrition of the TB patients [3]. The problem of nutrition in already weak TB patients looms large over the entire RNTCP. The efforts aimed at providing a counselor or a dietician in addition to the nutritional supplementation for a healthy body is the need of the hour. However, in majority of settings in both urban and rural India the healthcare workers working with TB cases are overloaded with work and thus are unable to advise the patients regarding nutrition. Therefore the role of experts like a dietician is important and essential. The corporate hospitals in India have this facility, but the TB patients are mostly from weak socioeconomic sections of the society and usually resort to government setups for free DOTS under the RNTCP. Thus, a majority of these patients are devoid of experts' advice

regarding nutrition and so their treatment outcomes are compromised many a times. Poor nutrition often leads to reactivation of TB in treated cases and is well reported in medical literature [7]. Besides, the activation of latent TB is also an important issue arising due to poor nutrition. The nutritional advice should be about a diet rich in both macro and micronutrients [3].

To conclude, nutritional supplementation and dietary advice may prove to be a novel treatment approach in TB patients. Besides, raising the nutritional status of general population may prove to be beneficial in the control of TB around the world.

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