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New Challenges in COVID-19

Lung Health -

| Abstract No. | Abstract Title |
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| 57 | Amrit Aahar: A study to assess the effectiveness of nutrition supplementation for patients with Tuberculosis in rural communities in Southern Rajasthan |

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Introduction: Rural communities in southern Rajasthan comprise a high proportion of tribal populations living in scattered and poorly accessible habitations and in conditions of abject poverty due to lack of livelihood. This leads to a high proportion of men migrating to cities in search of work. A high burden of malnutrition, subpar living conditions and lack of access to healthcare leads to a high burden of Tuberculosis in population. The paper aims to study the impact of nutritional supplementation on dietary practices, nutritional status and compliance to treatment of TB patients.

Methods: BHS runs a network of 6 nurse led primary healthcare clinics in southern Rajasthan where various communicable, non-communicable diseases, maternal and child health needs are addressed including TB. Amrit Aahar is a nutritious supplement of ingredients namely sooji (semolina), gram flour, roasted moong dal, soya bean chunks and oil. Amrit Aahar was given to TB patients in AMRIT Clinics in addition to medicines and counselling as treatment. We used a stepped wedge design to introduce it across five clinics. A structured interview captured the baseline information including socioeconomic details. The research team conducted periodic home visits to ascertain dietary intake. Clinical records provided details of anthropometry and treatment outcomes.



A health worker counselling a TB patient on how to incorporate Amrit Aahar in his diet while his family members look on

MEDIAN WEIGHT GAIN (GRAMS) 900 grams 2300 1,600 1650 Duration of treatment (in months)

Graph 1: Median weight gain corresponding to treatment duration



"Kajodi*, a TB patient near AMRIT Clinic proudly shares the mathari she has brought for the participants in Health day. Mathari is a savoury snack made from wheat flour and semolina, which is rich in energy. Kajodi learnt how to make mathari during the previous Health day (a peer group meeting for TB patients) '

Results: From December 2018 to June 2019, 108 patients were enrolled in the study, out of which 49% were either migrants or had a family member who migrates. The mean BMI at the start of the treatment was 15.73 and at the end of treatment was 16.33. The proportion of patients in the severe thinness category (BMI <17) reduced from 51% to 44% and in the intervention group, it reduced by 19%. The results also showed that an increase in duration of the intervention led to increased weight gain up to 9 months (graph 1). At the end of the treatment, the men(73%) showed a mean weight gain of 2440 gms while the women(27%)showed a weight gain of 1780 gms.

At the end of the treatment, 79% (75) completed the treatment, 17% (16) defaulted from the treatment and 3% died during the treatment. The study proved to be useful in changing dietary practices like increasing the frequency of meals in patients from 3 to 4, and an increase in cereal, pulses, vegetable and oil consumption in control as well as intervention groups.

Conclusion: Our study proves that nutritional supplements along with counselling can lead to better treatment outcomes in terms of treatment completion, nutritional status and dietary practices. It provides an avenue for similar research in areas with lower food insecurity. It also provides ground

to promote value added benefits to treatment to ensure better compliance and treatment outcomes in TB patients.