PREVALENCE OF EUTHYROID SICK SYNDROME IN NEWLY DETECTED PULMONARY TUBERCULOSIS PATIENTS AND THE CORRELATION OF THE SAME WITH FAILURE AT THE END OF INTENSIVE PHASE

ABSTRACT

- Euthyroid sick syndrome (ESS) is a state of abnormal thyroid function test in the setting of non thyroidal illness (NTI) in the absence of preexisting thyroid gland dysfunction and presence of normal Hypothalamo - Pitutary axis.ESS is more common in pulmonary tuberculosis and its prevalence has been described in upto 92% of subjects. Since pulmonary tuberculosis (PTB) carries high morbidity in the developing world, we designed this study to identify the prevalence of ESS in PTB patients.

METHODS

- Patients who are coming to the Govt. KMCH and Otteri TB centre, who were detected as Sputum AFB positive for Pulmonary Tuberculosis were evaluated. The investigations were done to findout Euthyroid sick syndrome in sputum positive Tuberculosis at the first visit. Then were followed for sputum conversion to identify Multi-Drug Resistant tuberculosis earlierly.

RESULTS

We performed a prospective study out of 120 patients who are sputum positive Tuberculosis, 109 patients were detected as ESS (90.83%). In this 109 patients, at the end of second month 18 patients were remains sputum positive (16.5%) and 6 patients were died (5.50%). Those who remain sputum positive at the end of second month, 13 out of 18 patients shows 3+ grading of sputum (72.22%) at the time of initial diagnosis. The patients who died at the end of two months showed 3+ and 4+ grading of sputum at initial diagnosis itself (66.67%). In our study the Free T3 distribution between the ESS and NTF. (Non Thyroid Function) groups was meaningfully significant (<0.0001). Further Cohen's effect size value (d=3.45) suggested a very high practical significance (99% study subjects with euthyroid sick syndrome will have lower free T3 levels at presentation).

To conclude those patients who are sputum positive Tuberculosis, thyroid profile has to be done at the initial diagnosis itself. So sputum positive Tuberculosis patients with Euthyroid sick syndrome has to be closely monitored every month to identify earlierly Multi –Drug Resistant Tuberculosis. So that we can prevent mortality due to Multi- Drug Resistant Tuberculosis.

Key words : Euthyroid sick syndrome, Non-thyroidal illness, Hypothalamo pituitary axis, Pulmonary Tuberculosis, Multi-Drug-Resistant Tuberculosis.