

Thyroid symptom scoring index – an authentic validation of Thyroid Function Tests?- a prospective comparative study from a Govt. General Hospital in South India

Background: Thyroid disease has myriad manifestations. Thyroid disorders present with multiple symptoms pertaining to hyperthyroidism or hypothyroidism. Various scoring indices have been tried and tested in the past. Thyroid function tests are regarded as the best method of diagnosing biochemical abnormalities in the recent days.

Objective: To validate the Clinical Symptom Scoring Index for thyroid disorders using TSH and FT4.

Methods: The Clinical Symptom Scoring Index was given to 101 patients presenting to our outpatient department with various thyroid-related complaints. They were then subjected to Thyroid function testing(TSH and Free T4) and classified accordingly.

Results: There were 40 hyperthyroid, 20 euthyroid and 41 hypothyroid subjects. The most frequent findings in the biochemically hyperthyroid group were weight loss(75.6%), increased appetite(39%), easy tiredness (90%), palpitations (93%), and tremors(68%);in the euthyroid group, easy tiredness (40%), thyroid enlargement (60%), and irritability (10%); in the hypothyroid group, easy tiredness (17.5%), weight gain (25%) and constipation (48%). The Clinical symptom scoring index for thyroid disorders has a sensitivity of 85%, specificity of 89%, and accuracy rate of 87 %, with AUC of 0.865 on ROC analysis for the detection of hyperthyroidism. For detecting hypothyroidism, it has a sensitivity of 65%, specificity of 58%, and accuracy rate of 62%, with AUC 0.565 on ROC analysis.

Conclusion: The Symptom scoring index for thyroid disorders was found to have good sensitivity, specificity and accuracy rate when correlated with TSH and FT4 for the detection of hyperthyroidism. Traditional scores are still valuable in order to consider patients for thyroid function testing. In the third world countries, with very minimal resources, these score indices can help in choosing the patients for biochemical evaluation, thus reducing the load on referral centres.