THYROID DYSFUNCTION AND ITS ASSOCIATED FACTORS AMONG LATE ADOLESCENT GIRLS- A CROSS SECTIONAL STUDY IN SALEM DISTRICT OF TAMILNADU- 2017

ABSTRACT

BACKGROUND:

Thyroid dysfunction is an iceberg disease with very slow pathophysiology but leading to serious complications. Prevalence of thyroid dysfunction vary based on age, sex, geographical areas. Prevalence among late adolescent females (age from 15 to 19 years) was unknown.

OBJECTIVES:

The primary objective was to estimate the prevalence of thyroid dysfunction and its sub categories among late adolescent female students of Salem district. 2. To determine the factors associated with thyroid dysfunction among these late adolescent girls.

METHODOLOGY:

A cross sectional study was conducted, in the educational institutes of Salem district among a sample of 1146 late adolescent female students from December 2016 to August 2017. Data on socio-demographic details, clinical symptoms, risk factors such as iodised salt intake, family and personal history of thyroid dysfunction, perceived stress was collected using a validated semi structured questionnaire, data on clinical signs such as goitre and anthropometric features was collected by clinical examination. Under universal precautions, blood sample was collected to estimate serum Thyroid stimulating hormone level. TSH was estimated using ultra sensitive sandwich chemi- luminescence immunoassay analyzed using Advia centaur analyzer and the normal Range for those in age from 15 to 18 years was 0.6 – 4.5 micro IU/ml and for those above 18 years was 0.3-5.5 micro IU/ml.
RESULTS:

Prevalence of thyroid dysfunction among the study population was 12.6 % (Confidence interval: 10.64% - 14.56 %.). Mild TSH elevation (upper normal limit to 10 micro IU/ml ) was more common than significant TSH elevation ( > 10 micro IU/ml ) and Suppressed TSH(less than normal range) and their respective prevalence was 6.2 %, 2.3% and 2.7 %. The prevalence of risk factors and clinical symptoms were high. Abnormal TSH had statistically significant association with family history, musculoskeletal problem, stress, BMI and goitre but not with iodized salt intake and other clinical features.

CONCLUSION:

One in eight late adolescent female adolescent student of Salem district had thyroid dysfunction. Further studies have to be done to find the reason for high prevalence of thyroid dysfunction among them and plan for appropriate management.

KEY WORDS:

Thyroid dysfunction, late adolescent Females, Salem district.