ABSTRACT
Thyrotoxicosis is caused by accelerated metabolism from excessive level of circulating thyroid hormones. It include chronic lymphocytic, thyroiditis, excess thyroid hormones ingestion (fictitious thyrotoxicosis), iodine induced disease, Mccune–Albright syndromes or constitutively activated TSH receptor. Acute or sub-acute thyroiditis which tends to transient, TSH Secreting pituitary tumors, toxic adenoma, multinodular goiter casing hyperthyroidism are rare in children. It is rare in children having less than five year of age and higher during adolescence (10-15 year of age), around more than two third of children shows occurrence in this age group. We reported 7 year old female child diagnosed as thyrotoxicosis who presented with goiter, exophthalmos, increased appetite, hyperactivity, and tachycardia, increased sweating. Clinical examination of patient findings shows bilateral thyromegaly which increase trapping function in given clinical content. The uptake pattern favour hyperfunction of thyroid gland possibly Graves Disease.

KEYWORDS: Bilateral Thyromegaly; Goiter; Exophthalmos; Hyperactivity; Tachycardia; Thyroid Scan.

CASE REPORT
A seven year old female child with unknown comorbid illness admitted in pediatric ward in civil hospital with chief complain of increased appetite for Six months. Emotional disturbances, motor hyperactivity, irritability & Goiter, Exophthalmos has been identified
from last two months. Failure to thrive, loose stools & Increased sweating for two months has been observed. On examination, she also noticed weight of 15 kg approximately, height of 120 cm.

Preliminary investigation showed a normal Hemoglobin (Hb)- 10.5 g/dl with neutrophilic band forms and raised erythrocyte sedimentation rate (ESR) -26 mm/hr, normal Chest X-ray and Echocardiographic stress (ECO). Electrocardiogram (ECG) showed sinus tachycardia. Test for cause of fever like malaria, typhoid were negative. Human immunodeficiency virus (HIV) test carried out by enzyme- linked immunosorbent assay (ELISA) and found to be negative. Serum T₃ and serum T₄ was elevated and serum TSH- level was suppressed. Serum T₃ level was 3.46 ng/ml and Serum T₄ was found to be 180.0 ng/ml. Serum TSH level was less than 0.05 MicroU/ml level. TSH- Receptor antibody serum level was determined by ELISA found to be 28.46 IU/L. Computer tomography (CT) showed abnormal neck. Thyromegaly with bilateral cervical lymphadenopathy was observed. Thyroid Scan – Findings shows bilateral thyromegaly which increase trapping function in given clinical content. The uptake pattern favour hyperfunction of thyroid gland possibly Graves Disease.

Treatment started after two weeks of admission to hospital and it has taken 6 to 8 weeks for hormone level T3 & T4 levels to get normalize. Beta blocker propanalol 0.5 – 2.0 mg /kg /day was given for one month for marked palpitation tremors. Monitoring of WBC count during anti thyroid drug therapy was carried out. Lower dose of irradiation is associated with feature malignancy and hence higher & single dose are recommended. Surgical therapy with
total thyroidectomy offer the most rapid resolution of thyrotoxicosis & is indicated when the goiter is two large.\[^1\] The treatment modality consist of medical management with anti thyroid drug radioactive iodine ablation surgery. Medical management keeps thyroid hormones levels within normal range till natural remissions occurs other two modality of treatment result in thyroid gland ablation to bring relief. Medical management is preferred in children medical therapy consist of propyril thyouracil, methamazole, carbemazole.\[^2\]

Figure 3: Failure to Thrive

DISCUSSION

Hyperthyroidism refers to increased hormone production by thyroid gland. It is infrequently encountered in childhood with an increase in incidence during adolescence. The clinical manifestations are attributed to accelerated metabolism due to excessive level of thyroid hormones. The most common cause of thyrotoxicosis in children is Grave disease (GD) which account for 10-15% of childhood thyroid disease in the western world.\[^3,4\]

Causes include chronic lymphocytic, thyroiditis, excess thyroid hormones ingestion (fictitious thyrotoxicosis), iodine induced disease, Mcune –Albright syndromes or constitutively activated TSH receptor.\[^5\] Acute or sub acute thyroiditis which tends to transient, TSH Secreting pituitary tumors, toxic adenoma, multinodular goiter casing hyperthyroidism are rare in children.\[^6\] 1000 cases of all ages of GD has shown an incidence of 5.7 % in children and adolescents.\[^7\] Grave disease in two large series from India reported an incidence of 3 % and 6 %, the incidence increasing with age, it is rare before 5 year of age and peaks during adolescence (10-15 year of age) with more than two thirds in children cause occurring in this age group.\[^8\] This disease is more common in girls ratio of girls: boy...
being 3.1:6.1. The signs of diffuse toxic goitr are exophthalmos, lid retraction, lid lag, impaired convergence, Ophthalmoplegia. Pretibial myxoedema is observed in Graves disease.\cite{1,9}

BIBLIOGRAPHY