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Rare Case of Autoimmune Thyroid disease – Hashimotosis with Microcytic Anaemia – in Seven Year Male Child

(Chronic Lymphocytic Thyroiditis)

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Abstract :- Hashimotis Thyroiditis is authoimune disorder in which immune system attack thyroid gland which results in Hypothyriodism, and raised Anti – TPO Antibodies.

Generally it is adult disease mainly suffering group is Female group.

But above 10 yrs. Some children may also get affected. But it is rare below 10 of age, but sign, symptoms and findings as well as complications are same in all age group. Sometimes Hashimotos Thyroiditis is associated with Hemolytic Anemia Thalassemia Trait or Iron deficiency an anemia.

Keywords:- *Hashimotos Thyroiditis, Autoimmune disorder, anti TPO Antibodies, Microcytic Anemia, Hypothyroidism, Hyperthyroidism.*

I. INTRODUCTION

Hashimotosis is the autoimmune disorder rarely seen in below the age of 10 years.

Thyroid gland is present in the neck. In Hashitomos thyroiditis own immune system attack the thyroid gland.

Mechanism of this disease is very different from other disease of thyroid. Generally two abnormal conditions of thyroid diseases observed that is,
1) Hyperthyroidism – This is the condition in which Thyroid Hormones level increased.
2) Hypothyroidism – This is the condition where thyroid hormones production decease in thyroid, so also called as underactive thyroid gland.

But in Hashimotos thyroiditis, due to immune system attacks, initially inflammation of thyroid results in excessive production of thyroid hormones cause hyperthyroidism. After some period of months or years, the existing inflammation prevents the thyroid from producing the sufficient thyroid hormones and result in a condition called as hypothyroidism.

In Autoimmune disorder, immune system turns against the body's own tissues and disturbs the functions of that particular organ.

In Hashimotosis, thyroid inflammations result in making insufficient quantity of thyroid hormones, and so hypothyroidism results in these patients.

Genetic components are supposed to be the reason for Hashimoto's Thyroditis. There is generally History of Thyroid disease or autoimmune disorders in close family members.

In various studies, it is observed that, there is 70 % and 30 % ratio in female to male so far as thyroid disorder are concerned.

Out of 70 % of women, 20 % women are prone to develop Hashimotos thyroiditis.

II. MAIN STUDY

- How a seven year male child is diagnosed as a case of Hashimotos Thyroiditis?

There was a school going seven year male child seen by pediatrician observed diffuse swelling in thyroid region on palpation. There was history of fatigue muscular pain, dry skin and history of hair loss Nose was slightly depressed ?? Thalassemia.

Pediatrician advised him some investigation

CBC :- Hb % - 7.5 gm %
PCV – 20.9
MCV – 59/cmm
Platelet count 4.98 Lacs/cmm
T_3, T_4, Normal
TSH 82.6 mIU/ml
Free T_3, Free T_4 – Normal
Hb electrophoresis – Normal 'AA' pattern
HbF % - 0.5 % (Normal less than 1%)
HbA_2 % 3.3% (Normal 1.5 to 3.5 %)

- *Anti Thyroglobulin Antibodies –* Antibodies patient value 1200 IU/ml.

Interpretation of Thyroglobulin Antibodies :-
Normal - Less than 100 IU/ml ,
Borderline – 100 to 150 IU/ml
Sr. LDH – 960 IU/L (High
Sr. Feritin – 3.7 mg/ml (Normal range – 22.0 to 322 mg/ml

- On X-ray (Radiogram of Left hand) (AP View) considering bone study calculated age of patient is between 7 to 8 years.
- Sonography Thyroid – Diffuse swelling suggestive of severe inflammation -

❖ *Treatment Advised By The Endocrinologist*

1) Syp. VitcoFol 2 TSF BD for Two months
2) Tab. Celin ½ BD for two months
3) Tab. Ostocalcium 1 daily for 1 year
4) Tab. Thyronorm – 100 mg. OD

❖ *Advice* **:-** Repeat investigations :-

T_3, T_4, TSH,
Free T_3, Free T_4, after two months of treatment.

III. CONCLUSION

Presence of Antithyroid Antibodies (Anti TPO antibodies) highly increased level and TSH value is also increased. These two parameters along with clinical findings and history of patients confirm the diagnosis of Hashimotos thyroiditis.

Once the diagnosis of Hashimotos Thyroiditis is made, for follow up TSH is advised and considering TSH level pediatrician and Endocrinologist decide the dose of medicine to regulate Hormone level in the patients and try to restore patients normal metabolism.

Slow mental functioning in some case congenital heart problems related with high higher values of LDL cholesterol which is bad cholesterol for health – may lead to enlarged heart & rarely heart failure.

Healthy food habits like sufficient protein intake, Avoiding fasting condition, keep patient always hydrated are few necessary tips for the comfort of the patients.

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