LABORATORY REPORT

Redcliffe labs

Patient Name	:	Bill Date	:
DOB/Age/Gender	:	Sample Collected	:
Patient ID / UHID	:	Sample Received	:
Referred By	:	Report Date	:
Sample Type	:	Barcode No	:
Client	:	Report Status	:

Test Description	Value(s)	Unit(s)	Reference Range
BIOCHEMISTRY REPORT			
Thyroid Profile Total			
TRIIODOTHYRONINE (T3) Method : CMIA	70.1	ng/dL	35 - 193
TOTAL THYROXINE (T4) Method : CMIA	5.5	µg/dL	4.87 - 11.2
THYROID STIMULATING HORMONE (Ultrasensitive) Method : CMIA	**11.4426**	mIU/L	0.35 - 4.94

Interpretation:

Primary malfunction of the thyroid gland may result in excessive (hyper) or below normal (hypo) release of T3 or T4. In addition as TSH directly affects thyroid function, malfunction of the pituitary or the hypo - thalamus influences the thyroid gland activity. Disease in any portion of the thyroid-pitutary-hypothala- mus system may influence the levels of T3 and T4 in the blood. In primary hypothyroidism, TSH levels are significantly elevated, while in secondary and tertiary hypothyroidism, TSH levels may be low. In addition, in the Euthyroid Sick Syndrome, multiple alterations in serum thyroid function test findings have been recognized in patients with a wide variety of non-thyroidal illnesses (NTI) without evidence of preexisting thyroid or hypothalami c-pitutary diseases. Thyroid Binding Globulin (TBG) concentrations remain relatively constant in healthy individuals. However, pregnancy, excess estrogen's, androgen's, antibiotic steroids and glucocorticoids are known to alter TBG levels and may cause false thyroid values for Total T3 and T4 tests.

TSH	T4	T3	INTERPRETATION
High	Normal	Normal	Mild (subclinical) hypothyroidism
High	Low	Low or normal	Hypothyroidism
Low	Normal	Normal	Mild (subclinical) hyperthyroidism
Low	High or normal	High or normal	Hyperthyroidism
Low	Low or normal	Low or normal	Nonthyroidal illness; pituitary (secondary) hypothyroidism
Normal	High	High	Thyroid hormone resistance syndrome (a mutation in the thyroid hormone receptor decreases thyroid hormone function)

Dr. Veerendra Kumar Tyagi
MBBS, MD (Pathology)
Consultant Pathologist

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BIOCHEMISTRY REPORT

TSH Receptor Antibody

TSH RECEPTOR ANTIBODY, SERUM	**6.05**	IU/L	< 1.22

Method : ECLIA

Interpretation:

TSH Receptor antibody levels in IU/L	Remarks
< **1.22 (**97.5th percentiles)	**Upper limit in healthy individual**
<**1.53 (**97.5th percentiles)	**Thyroid disease without diagnosis of Graves' disease**
>**1.75 (97 %** sensitivity & 99 % specificity)	**Suggestive of Graves' disease**

Clinical Use:

1. Differential diagnosis of etiology of Thyrotoxicosis in patients with ambiguous clinical findings, non diagnostic thyroid radio-isotope scans & in pregnant or breast feeding females where thyroid
radio-isotope scans are contraindicated
2. Diagnosis of clinically suspected Graves disease (Extra thyroidal manifestation of Graves disease,Endocrine Exophthalmus, Pretibial Myxedama, Thyroid acropachy) in patients with normal thyroid function tests
3. Determining risk of Neonatal thyrotoxicosis in a pregnant female with active or past history of Graves disease
4.Differential diagnosis of Gestational Thyrotoxicosis versus First trimester manifestation or recurrence of Graves disease
5.Assessing the risk of Graves disease relapse after antithyroid therapy

Note

1. In patients receiving high dose Biotin therapy (>5 mg/day), the specimen should not be collected for at least 8 hours after the last biotin administration.
2. Sodium heparin therapy interferes with this assay hence sampling from these patients is not recommended.
3. Rarely high titers of antibodies to Streptavidin and Ruthenium may also interfere with the assay.

Comments

TSH Receptor stimulating antibodies are most closely associated with disease pathogenesis in all forms of Autoimmune thyrotoxicosis (Graves disease), Hashitoxicosis & Neonatal Thyrotoxicosis. These antibodies may be detected before Autoimmune thyrotoxicosis becomes biochemically or clinically manifest. Since treatments for Graves disease are not aimed at underlying disease process but deal with ablation of thyroid tissue, these antibodies may persist even after apparent clinical cure. This is specially relevant in pregnant women with Graves disease treated with thyroid ablative therapy who continue to produce thyroid receptor antibodies which can cross the placental barrier and cause Neonatal thyrotoxicosis.

Sohini Sengupta

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HOD (Biochemistry & Special Assays)

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2. It is to be presumed that the tests performed pertain to the specimen/sample attributed to the Customer's name or identification. It is presumed that the verification particulars have been cleared out by the customer or his/her representation at the point of generation of said specimen / sample. It is hereby clarified that the reports furnished are restricted solely to the given specimen only.

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