Dr. Vinay Chopra
MD (Pathology & Microbiology)
Chairman & Consultant Pathologist

Dr. Yugam Chopra
MD (Pathology)
CEO & Consultant Pathologist

NAME	**: Mrs. NITIKA**		
AGE/ GENDER	: 33 YRS/FEMALE	**PATIENT ID**	: 1557545
COLLECTED BY	:	**REG. NO./LAB NO.**	**: 012407220054**
REFERRED BY	:	**REGISTRATION DATE**	: 22/Jul/2024 07:25 PM
BARCODE NO.	: 01513633	**COLLECTION DATE**	: 22/Jul/2024 07:27PM
CLIENT CODE.	: KOS DIAGNOSTIC LAB	**REPORTING DATE**	: 22/Jul/2024 09:10PM
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval

HAEMATOLOGY

GLYCOSYLATED HAEMOGLOBIN (HBA1C)

GLYCOSYLATED HAEMOGLOBIN (HbA1c): WHOLE BLOOD *by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)*	5.3	%	4.0 - 6.4
ESTIMATED AVERAGE PLASMA GLUCOSE *by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)*	105.41	mg/dL	60.00 - 140.00

INTERPRETATION:

AS PER AMERICAN DIABETES ASSOCIATION (ADA):		
REFERENCE GROUP	**GLYCOSYLATED HEMOGLOGIB (HBAIC) in %**	
Non diabetic Adults >= 18 years	<5.7	
At Risk (Prediabetes)	5.7 – 6.4	
Diagnosing Diabetes	>= 6.5	
Therapeutic goals for glycemic control	**Age > 19 Years**	
	Goals of Therapy:	< 7.0
	Actions Suggested:	>8.0
	Age < 19 Years	
	Goal of therapy:	<7.5

COMMENTS:

1.Glycosylated hemoglobin (HbA1c) test is three monthly monitoring done to assess compliace with therapeutic regimen in diabetic patients.

2.Since Hb1c reflects long term fluctuations in blood glucose concentration, a diabetic patient who has recently under good control may still have high concentration of HbAIc. Converse is true for a diabetic previously under good control but now poorly controlled.

3.Target goals of < 7.0 % may be beneficial in patients with short duration of diabetes, long life expectancy and no significant cardiovascular disease. In patients with significant complications of diabetes, limited life expectancy or extensive co-morbid conditions, targetting a goal of < 7.0% may not be appropiate.

4.High HbA1c (>9.0 -9.5 %) is strongly associated with risk of development and rapid progression of microvascular and nerve complications

5.Any condition that shorten RBC life span like acute blood loss, hemolytic anemia falsely lower HbA1c results.

6.HbA1c results from patients with HbSS,HbSC and HbD must be interpreted with caution , given the pathological processes including anemia,increased red cell turnover, and transfusion requirement that adversely impact HbA1c as a marker of long-term gycemic control.

7.Specimens from patients with polycythemia or post-splenctomy may exhibit increse in HbA1c values due to a somewhat longer life span of the red cells.

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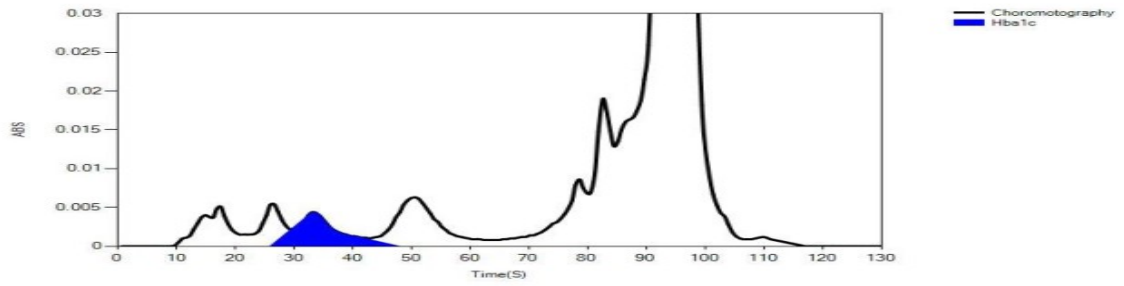
Test Name	Value	Unit	Biological Reference interval

LIFOTRONIC Graph Report

Name :	Case :	Patient Type :		Test Date : 22/07/2024 20:45:52
Age :	Department :	Sample Type : Whole Blood EDTA		Sample Id : 01513633
Gender :				Total Area : 12874

Peak Name	Retention Time(s)	Absorbance	Area	Result (Area %)
HbA0	70	3436	11529	87.5
HbA1c	37	63	697	5.3
La1c	24	44	302	2.3
HbF	19	55	74	0.6
Hba1b	12	52	138	1.0
Hba1a	11	40	134	1.0



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Test Name	Value	Unit	Biological Reference interval

ENDOCRINOLOGY

THYROID STIMULATING HORMONE (TSH)

THYROID STIMULATING HORMONE (TSH): SERUM	1.761	µIU/mL	0.35 - 5.50

by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)

3rd GENERATION, ULTRASENSITIVE

INTERPRETATION:

AGE	REFFERENCE RANGE (µIU/mL)
0 – 5 DAYS	0.70 – 15.20
6 Days – 2 Months	0.70 – 11.00
3 – 11 Months	0.70 – 8.40
1 – 5 Years	0.70 – 7.00
6 – 10 Years	0.60 – 5.50
11 - 15	0.50 – 5.50
> 20 Years (Adults)	0.27 – 5.50
PREGNANCY	
1st Trimester	0.10 - 3.00
2nd Trimester	0.20 - 3.00
3rd Trimester	0.30 - 4.10

NOTE:-*TSH levels are subjected to circardian variation, reaching peak levels between 2-4 a.m and at a minimum between 6-10 pm. The variation is of the order of 50 %. Hence time of the day has influence on the measured serum TSH concentration.*

USE:- TSH controls biosynthesis and release of thyroid harmones T4 & T3. It is a sensitive measure of thyroid function, especially useful in early or subclinical hypothyroidism, before the patient develops any clinical findings or goitre or any other thyroid function abnormality.

INCREASED LEVELS:

1.Primary or untreated hypothyroidism, may vary from 3 times to more than 100 times normal depending on degree of hypofunction.
2.Hypothyroid patients receiving insufficient thyroid replacement therapy.
3.Hashimotos thyroiditis.
4.DRUGS: Amphetamines, Iodine containing agents and dopamine antagonist.
5.Neonatal period, increase in 1st 2-3 days of life due to post-natal surge.

DECREASED LEVELS:

1.Toxic multi-nodular goitre & Thyroiditis.
2.Over replacement of thyroid harmone in treatment of hypothyroidism.
3.Autonomously functioning Thyroid adenoma
4.Secondary pituatary or hypothalmic hypothyroidism
5.Acute psychiatric illness
6.Severe dehydration.

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7.DRUGS: Glucocorticoids, Dopamine, Levodopa, T4 replacement therapy, Anti-thyroid drugs for thyrotoxicosis.
8.Pregnancy: 1st and 2nd Trimester

LIMITATIONS:

1.TSH may be normal in central hypothyroidism, recent rapid correction of hyperthyroidism or hypothyroidism, pregnancy, phenytoin therapy.
2.Autoimmune disorders may produce spurious results.

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Test Name	Value	Unit	Biological Reference interval

IMMUNOPATHOLOGY/SEROLOGY

ANTI PHOSPHOLIPID ANTIBODY IgG

ANTI PHOSPHOLIPID ANTIBODY IgG	5.09	GPL U/mL	0.00 - 12.00

by ELISA (ENZYME LINKED IMMUNOASSAY)

INTERPRETATION:-

ANTI PHOSPHOLIPID IgG RESULT	UNIT	VALUE
NEGATIVE	GPL U/mL	< 12.00
POSITIVE	GPL U/mL	12 OR >12.00

1.Antiphospholipid antibody syndrome (commonly called antiphospholipid syndrome or APS) is an autoimmune disease present mostly in young women. 2.Those with APS make abnormal proteins called antiphospholipid autoantibodies in the blood which interact with the negatively charged cell membrane phospholipids including those present on vascular endothelial cells.
3.Various antiphospholipid antibodies are responsible for the development of this disorder, these are anticardiolopin, 2 glycoprotein 1, phosphatidyl-serine-choline-ethanolamine-sphingomyelin and inositol.
4.The presence of these antibodies in the plasma leads to prolongation of PT and APTT in vitro (anticoagulants), however in vivo they are associated with thrombotic tendencies including recurrent venous thrombo-embolism, cerebro-vascular accidents and arterial events.
5. It is also associated with recurrent abortions, fetal loss and other complications of pregnancy.

This test picks up antibodies belonging to all the above subtypes.

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Test Name	Value	Unit	Biological Reference interval

ANTI PHOSPHOLIPID ANTIBODY IgM

ANTI PHOSPHOLIPID ANTIBODY IgM *by ELISA (ENZYME LINKED IMMUNOASSAY)*	4.21	MPL U/mL	0.00 - 12.00

INTERPRETATION:-

ANTI PHOSPHOLIPID IgM RESULT	UNIT	VALUE
NEGATIVE	MPL IU/mL	< 12.00
POSITIVE	MPL IU/mL	12 OR >12.00

1.Antiphospholipid antibody syndrome (commonly called antiphospholipid syndrome or APS) is an autoimmune disease present mostly in young women. 2.Those with APS make abnormal proteins called antiphospholipid autoantibodies in the blood which interact with the negatively charged cell membrane phospholipids including those present on vascular endothelial cells.
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Test Name	Value	Unit	Biological Reference interval

ANTI NUCLEAR ANTIBODY/FACTOR (ANA/ANF)

ANTI NUCLEUR ANTIBODIES (ANA): SERUM *by ELISA (ENZYME LINKED IMMUNOASSAY)*	0.52	INDEX VALUE	NEGATIVE: < 1.0 BORDERLINE: 1.0 - 1.20 POSITIVE: > 1.20

INTERPRETATION:-

1.For diagnostic purposes, ANA value should be used as an adjuvant to other clinical and laboratory data available.
2.Measurement of antinuclear antibodies (ANAs) in serum is the most commonly performed screening test for patients suspected of having a systemic rheumatic disease, also referred to as connective tissue disease.
3.ANAs occur in patients with a variety of autoimmune diseases, both systemic and organ-specific. They are particularly common in the systemic rheumatic diseases, which include lupus erythematosus (LE), discoid LE, drug-induced LE, mixed connective tissue disease, Sjogren syndrome, scleroderma (systemic sclerosis), CREST (calcinosis, Raynaud's phenomenon, esophageal dysmotility, sclerodactyly, telangiectasia) syndrome, polymyositis/dermatomyositis, and rheumatoid arthritis.

NOTE:

1.The diagnosis of a systemic rheumatic disease is based primarily on the presence of compatible clinical signs and symptoms.
The results of tests for autoantibodies including ANA and specific autoantibodies are ancillary. Additional diagnostic criteria include consistent histopathology or specific radiographic findings. Although individual systemic rheumatic diseases are relatively uncommon, a great many patients present with clinical findings that are compatible with a systemic rheumatic disease ANA screening may be useful for ruling out the disease.
2.Secondary, disease specific auto antibodies maybe ordered for patients who are screen positive as ancillary aids for the diagnosis of specific auto-immune disorders.

*** End Of Report ***

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