

DIAGNOSTICS REPORT

Patient Name	: Mr. NILESH THIRUVENGADAM MUDALIAI	Order Date	: 27/03/2024 09:58
Age/Sex	: 33 Year(s)/Male	Report Date	: 27/03/2024 11:34
UHID	: SHHM.90450		
Ref. Doctor	:	Facility	: SEVENHILLS HOSPITAL, MUMBAI
		Mobile	: 9773495031
Address	: GHATKOPAR, GHATKOPAR, Mumbai, Maharashtra, 400086		

2D ECHOCARDIOGRAPHY WITH COLOUR DOPPLER STUDY

Normal LV and RV systolic function.

Estimated LVEF = 60%

No LV regional wall motion abnormality at rest .

All valves are structurally and functionally normal.

Normal sized cardiac chambers.

No LV Diastolic dysfunction .

No pulmonary arterial hypertension.

No regurgitation across any other valves.

Normal forward flow velocities across all the cardiac valves.

Aorta and pulmonary artery dimensions: normal.

IAS / IVS: Intact.

No evidence of clot, vegetation, calcification, pericardial effusion.

COLOUR DOPPLER: NO MR/AR.



Dr. Ganesh Vilas Manudhane
M.ch, MCH/DM

RegNo: 2011/06/1763

LABORATORY INVESTIGATION REPORT

Patient Name	: Mr. NILESH THIRUVENGADAM MUDALIAR	Age/Sex	: 33 Year(s) / Male
UHID	: SHHM.90450	Order Date	: 27/03/2024 09:58
Episode	: OP	Mobile No	: 9773495031
Ref. Doctor	: Self	DOB	: 20/01/1991
		Facility	: SEVENHILLS HOSPITAL, MUMBAI

Blood Bank

Test Name	Result		
Sample No : O0322519A	Collection Date : 27/03/24 10:07	Ack Date : 27/03/2024 10:58	Report Date : 27/03/24 13:06

BLOOD GROUPING/ CROSS-MATCHING BY SEMI AUTOMATION#

BLOOD GROUP (ABO)	' O '		
Rh Type <i>Method - Column Agglutination</i>	POSITIVE		

REMARK: THE REPORTED RESULTS PERTAIN TO THE SAMPLE RECEIVED AT THE BLOOD CENTRE.

Interpretation:

Blood typing is used to determine an individual's blood group, to establish whether a person is blood group A, B, AB, or O and whether he or she is Rh positive or Rh negative. Blood typing has the following significance,

- Ensure compatibility between the blood type of a person who requires a transfusion of blood or blood components and the ABO and Rh type of the unit of blood that will be transfused.
- Determine compatibility between a pregnant woman and her developing baby (fetus). Rh typing is especially important during pregnancy because a mother and her fetus could be incompatible.
- Determine the blood group of potential blood donors at a collection facility.
- Determine the blood group of potential donors and recipients of organs, tissues, or bone marrow, as part of a workup for a transplant procedure.

End of Report



Dr. Pooja Vinod Mishra
MD Pathology

Jr Consultant Pathologist, MMC Reg No.
2017052191
RegNo: 2017/05/2191

LABORATORY INVESTIGATION REPORT

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HAEMATOLOGY

Test Name	Result	Unit	Biological Reference Interval
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Sample No : O0322519A	Collection Date : 27/03/24 10:07	Ack Date : 27/03/2024 10:36	Report Date : 27/03/24 13:24
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COMPLETE BLOOD COUNT (CBC) - EDTA WHOLE BLOOD#

Test Name	Result	Unit	Biological Reference Interval
Total WBC Count	6.20	x10 ³ /ul	4 - 10
Neutrophils	43.8	%	40 - 80
Lymphocytes	40.2 ▲ (H)	%	20 - 40
Eosinophils	10.6 ▲ (H)	%	1 - 6
Monocytes	5.1	%	2 - 10
Basophils	0.3 ▼ (L)	%	1 - 2
Absolute Neutrophil Count	2.72	x10 ³ /ul	2 - 7
Absolute Lymphocyte Count	2.49	x10 ³ /ul	0.8 - 4
Absolute Eosinophil Count	0.66 ▲ (H)	x10 ³ /ul	0.02 - 0.5
Absolute Monocyte Count	0.31	x10 ³ /ul	0.12 - 1.2
Absolute Basophil Count	0.02	x10 ³ /ul	0 - 0.1
RBCs	4.56	x10 ⁶ /ul	4.5 - 5.5
Hemoglobin	12.9 ▼ (L)	gm/dl	13 - 17
Hematocrit	39.4 ▼ (L)	%	40 - 50
MCV	86.6	fl	83 - 101
MCH	28.4	pg	27 - 32



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MCHC	32.8	gm/dl	31.5 - 34.5
RED CELL DISTRIBUTION WIDTH-CV (RDW-CV)	13.0	%	11 - 16
RED CELL DISTRIBUTION WIDTH-SD (RDW-SD)	41.9	fl	35 - 56
Platelet	301	x10 ³ /ul	150 - 410
Mean Platelet Volume (MPV)	10.2	fl	6.78 - 13.46
PLATELET DISTRIBUTION WIDTH (PDW)	16.2	%	9 - 17
PLATELETCRIT (PCT)	0.308 ▲ (H)	%	0.11 - 0.28
<p>Note</p> <p>RBCs- NORMOCHROMIC NORMOCYTIC.</p> <p>WBCs-MILD EOSINOPHILIA.</p> <p>PLATELETS-ADEQUATE ON SMEAR</p>			

Method:-

HB Colorimetric Method.

RBC/PLT Electrical Impedance Method.

WBC data Flow Cytometry by Laser Method.

MCV, MCH, MCHC, RDW and rest parameters - Calculated.

All Abnormal Haemograms are reviewed confirmed microscopically.

NOTE: Wallach's Interpretation of Diagnostic Tests. 11th Ed, Editors: Rao LV. 2021

NOTE :-

The International Council for Standardization in Haematology (ICSH) recommends reporting of absolute counts of various WBC subsets for clinical decision making. This test has been performed on a fully automated 5 part differential cell counter which counts over 10,000 WBCs to derive differential counts. A complete blood count is a blood panel that gives information about the cells in a patient's blood, such as the cell count for each cell type and the concentrations of Hemoglobin and platelets. The cells that circulate in the bloodstream are generally divided into three types: white blood cells (leukocytes), red blood cells (erythrocytes), and platelets (thrombocytes). Abnormally high or low counts may be physiological or may indicate disease conditions, and hence need to be interpreted clinically.



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End of Report



Dr. Ritesh Kharche
MD, PGD

Consultant Pathologist and Director of
Laboratory Services
RegNo: 2006/03/1680



MC-5288

LABORATORY INVESTIGATION REPORT

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Biochemistry

Test Name	Result	Unit	Biological Reference Interval
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Sample No : O0322519A	Collection Date : 27/03/24 10:07	Ack Date : 27/03/2024 10:36	Report Date : 27/03/24 12:26
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GLYCOSLYATED HAEMOGLOBIN (HBA1C)			
HbA1c <i>Method - Immunoturbidimetry</i>	5.88	%	4 to 6% Non-diabetic 6.0--7.0% Excellent control 7.0--8.0% Fair to good control 8.0--10% Unsatisfactory control ABOVE 10% Poor control
Estimated Average Glucose (eAG) <i>Method - Calculated</i>	122.06	mg/dl	90 - 126



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Ref. Doctor : Self	Mobile No : 9773495031
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NOTES :-

- HbA1c is used for monitoring diabetic control. It reflects the mean plasma glucose over three months
- HbA1c may be falsely low in diabetics with hemolytic disease. In these individuals a plasma fructosamine level may be used which evaluates diabetes over 15 days.
- Inappropriately low HbA1c values may be reported due to hemolysis, recent blood transfusion, acute blood loss, hypertriglyceridemia, chronic liver disease. Drugs like dapsone, ribavirin, antiretroviral drugs, trimethoprim, may also cause interference with estimation of HbA1c, causing falsely low values.
- HbA1c may be increased in patients with polycythemia or post-splenectomy.
- Inappropriately higher values of HbA1c may be caused due to iron deficiency, vitamin B12 deficiency, alcohol intake, uremia, hyperbilirubinemia and large doses of aspirin.
- Trends in HbA1c are a better indicator of diabetic control than a solitary test.
- Any sample with >15% HbA1c should be suspected of having a hemoglobin variant, especially in a non-diabetic patient. Similarly, below 4% should prompt additional studies to determine the possible presence of variant hemoglobin.
- HbA1c target in pregnancy is to attain level <6 % .
- HbA1c target in paediatric age group is to attain level < 7.5 %.

Method : turbidimetric inhibition immunoassay (TINIA) for hemolyzed whole blood
Reference : American Diabetes Associations. Standards of Medical Care in Diabetes 2015

<u>GLUCOSE-PLASMA-FASTING</u>			
Glucose,Fasting	94.95	mg/dl	70 - 110



MC-5288

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American Diabetes Association Reference Range :

Normal : < 100 mg/dl

Impaired fasting glucose(Prediabetes) : 100 - 126 mg/dl

Diabetes : >= 126 mg/dl

References:

1)Pack Insert of Bio system

2) Tietz Textbook Of Clinical Chemistry And Molecular Diagnostics, 6th Ed, Editors: Rifai et al. 2018

Interpretation :-

Conditions that can result in an elevated blood glucose level include: Acromegaly, Acute stress (response to trauma, heart attack, and stroke for instance), Chronic kidney disease, Cushing syndrome, Excessive consumption of food, Hyperthyroidism, Pancreatitis.

A low level of glucose may indicate hypoglycemia, a condition characterized by a drop in blood glucose to a level where first it causes nervous system symptoms (sweating, palpitations, hunger, trembling, and anxiety), then begins to affect the brain (causing confusion, hallucinations, blurred vision, and sometimes even coma and death). A low blood glucose level (hypoglycemia) may be

seen with: Adrenal insufficiency, Drinking excessive alcohol, Severe liver disease, Hypopituitarism, Hypothyroidism, Severe infections, Severe heart failure, Chronic kidney (renal) failure, Insulin overdose, Tumors that produce insulin (insulinomas), Starvation.

Lipid Profile			
Total Cholesterol	158.55	mg/dl	CHILD Desirable - Less than : 170 CHILD Borderline High : 170-199 CHILD High - More than : 200 ADULT Desirable - Less than : 200 ADULT Borderline High : 200-239 ADULT High - More than : 240



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Ref. Doctor : Self	DOB : 20/01/1991
	Facility : SEVENHILLS HOSPITAL, MUMBAI

Triglycerides <i>Method - glycerol Phosphate Oxidase/Peroxide</i>	63.41	mg/dl	NORMAL : <150 Borderline High : 150-199 High : 200-499 Very High : > 500
HDL Cholesterol <i>Method - Enzymatic immuno inhibition</i>	34.94	mg/dl	Desirable - Above 60 Borderline Risk : 40-59 Undesirable - Below :40
LDL Cholesterol <i>Method - Calculated</i>	110.93	mg/dl	Desirable - Below : 130 Borderline Risk : 130-159 Undesirable - Above : 160
VLDL Cholesterol <i>Method - Calculated</i>	12.68	mg/dl	5 - 51
Total Cholesterol / HDL Cholesterol Ratio - Calculated <i>Method - Calculated</i>	4.54	RATIO	0 - 5
LDL / HDL Cholesterol Ratio - Calculated <i>Method - Calculated</i>	3.17	RATIO	0 - 3.6



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Note:

- 1) Biological Reference Interval is as per National Cholesterol Education Program (NCEP) Guidelines.
- 2) tests done on Fully Automated Biosystem BA-400 Biochemistry Analyser.

Interpretation

1. **Triglycerides:** When triglycerides are very high greater than 1000 mg/dL, there is a risk of developing pancreatitis in children and adults. Triglycerides change dramatically in response to meals, increasing as much as 5 to 10 times higher than fasting levels just a few hours after eating. Even fasting levels vary considerably day to day. Therefore, modest changes in fasting triglycerides measured on different days are not considered to be abnormal.
2. **HDL-Cholesterol:** HDL- C is considered to be beneficial, the so-called "good" cholesterol, because it removes excess cholesterol from tissues and carries it to the liver for disposal. If HDL-C is less than 40 mg/dL for men and less than 50 mg/dL for women, there is an increased risk of heart disease that is independent of other risk factors, including the LDL-C level. The NCEP guidelines suggest that an HDL cholesterol value greater than 60 mg/dL is protective and should be treated as a negative risk factor.
3. **LDL-Cholesterol:** Desired goals for LDL-C levels change based on individual risk factors. For young adults, less than 120 mg/dL is acceptable. Values between 120-159 mg/dL are considered Borderline high. Values greater than 160 mg/dL are considered high. Low levels of LDL cholesterol may be seen in people with an inherited lipoprotein deficiency and in people with hyperthyroidism, infection, inflammation, or cirrhosis.

Uric Acid (Serum)			
Method - Uricase			
Uric Acid	5.97	mg/dl	3.5 - 7.2
Method - Uricase			

References:

- 1) Pack Insert of Bio system
- 2) TIETZ Textbook of Clinical chemistry and Molecular Diagnostics Edited by: Carl A. burtis, Edward R. Ashwood, David e. Bruns

Interpretation:-

Uric acid is produced by the breakdown of purines. Purines are nitrogen-containing compounds found in the cells of the body, including our DNA. Increased concentrations of uric acid can cause crystals to form in the joints, which can lead to the joint inflammation and pain characteristic of gout. Low values can be associated with some kinds of liver or kidney diseases, Fanconi syndrome, exposure to toxic compounds, and rarely as the result of an inherited metabolic defect (Wilson disease).



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<u>Liver Function Test (LFT)</u>			
SGOT (Aspartate Transaminase) - SERUM <i>Method - IFCC</i>	19.54	IU/L	0 - 35
SGPT (Alanine Transaminase) - SERUM <i>Method - IFCC</i>	28.5	IU/L	0 - 45
Total Bilirubin - SERUM <i>Method - Diazo</i>	0.66	mg/dl	0 - 2
Direct Bilirubin - - SERUM <i>Method - Diazotization</i>	0.3	mg/dl	0 - 0.4
Indirect Bilirubin - Calculated <i>Method - Calculated</i>	0.36	mg/dl	0.1 - 0.8
Alkaline Phosphatase - SERUM <i>Method - IFCC AMP Buffer</i>	97.09	IU/L	43 - 115
Total Protein - SERUM <i>Method - Biuret</i>	6.96	gm/dl	6 - 7.8
Albumin - SERUM <i>Method - Bromo Cresol Green(BCG)</i>	4.54	gm/dl	3.5 - 5.2
Globulin - Calculated <i>Method - Calculated</i>	2.42	gm/dl	2 - 4
A:G Ratio <i>Method - Calculated</i>	1.88	:1	1 - 3



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References:

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Interperatation :-

Bilirubin is a yellowish pigment found in bile and is a breakdown product of normal heme catabolism. Elevated levels results from increased bilirubin production (eg hemolysis and ineffective erythropoiesis); decreased bilirubin excretion (eg; obstruction and hepatitis); and abnormal bilirubin metabolism (eg; hereditary and neonatal jaundice). conjugated (direct) bilirubin is also elevated more than unconjugated (indirect) bilirubin when there is some kind of blockage of the bile ducts like in Gallstones getting into the bile ducts tumors & Scarring of the bile ducts. Increased unconjugated (indirect) bilirubin may be a result of hemolytic or pernicious anemia, transfusion reaction & a common metabolic condition termed Gilbert syndrome.

AST levels increase in viral hepatitis, blockage of the bile duct ,cirrhosis of the liver, liver cancer, kidney failure, hemolytic anemia, pancreatitis, hemochromatosis. Ast levels may also increase after a heart attck or strenuous activity. ALT is commonly measured as a part of a diagnostic evaluation of hepatocellular injury, to determine liver health. Elevated ALP levels are seen in Biliary Obstruction, Osteoblastic Bone Tumors, Osteomalacia, Hepatitis, Hyperparathyroidism, Leukemia, Lymphoma, paget`s disease, Rickets, Sarcoidosis etc.

Elevated serum GGT activity can be found in diseases of the liver, Biliary system and pancreas. Conditions that increase serum GGT are obstructive liver disease, high alcohol consumption and use of enzyme-including drugs etc.

Serum total protein, also known as total protein, is a biochemical test for measuring the total amount of protein in serum..Protein in the plasma is made up of albumin and globulin. Higher-than-normal levels may be due to: Chronic inflammation or infection, including HIV and hepatitis B or C, Multiple myeloma, Waldenstrom's disease.

Lower-than-normal levels may be due to: Agammaglobulinemia, Bleeding (hemorrhage), Burns, Glomerulonephritis, Liver disease, Malabsorption, Malnutrition, Nephrotic - Human serum albumin is the most abundant protein in human blood plasma. It is produced in the liver. Albumin constitutes about half of the blood serum protein. Low blood albumin levels (hypoalbuminemia) can be caused by: Liver disease like cirrhosis of the liver, nephrotic syndrome, protein-losing enteropathy, Burns, hemodilution, increased vascular permeability or decreased lymphatic clearance, malnutrition and wasting etc.

Renal Function Test (RFT)			
Urea - SERUM <i>Method - Urease</i>	22.84	mg/dl	15 - 39
BUN - SERUM <i>Method - Urease-GLDH</i>	10.67	mg/dl	4 - 18
Creatinine - SERUM <i>Method - Jaffes Kinetic</i>	0.86	mg/dl	0.5 - 1.3



MC-5288

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Interpretation:-

The blood urea nitrogen or BUN test is primarily used, along with the creatinine test, to evaluate kidney function in a wide range of circumstances, to help diagnose kidney disease, and to monitor people with acute or chronic kidney dysfunction or failure. It also may be used to evaluate a person's general health status.

GLUCOSE-PLASMA POST PRANDIAL			
Glucose, Post Prandial	129.92	mg/dl	70 - 140

American Diabetes Association Reference Range :

Post-Prandial Blood Glucose:

- Non- Diabetic: Up to 140mg/dL
- Pre-Diabetic: 140-199 mg/dL
- Diabetic : >200 mg/dL

References:

- 1) Pack Insert of Bio system
- 2) Tietz Textbook Of Clinical Chemistry And Molecular Diagnostics, 6th Ed, Editors: Rifai et al. 2018

Interpretation :-

Conditions that can result in an elevated blood glucose level include: Acromegaly, Acute stress (response to trauma, heart attack, and stroke for instance), Chronic kidney disease, Cushing syndrome, Excessive consumption of food, Hyperthyroidism, Pancreatitis.

A low level of glucose may indicate hypoglycemia, a condition characterized by a drop in blood glucose to a level where first it causes nervous system symptoms (sweating, palpitations, hunger, trembling, and anxiety), then begins to affect the brain (causing confusion, hallucinations, blurred vision, and sometimes even coma and death). A low blood glucose level (hypoglycemia) may be seen with: Adrenal insufficiency, Drinking excessive alcohol, Severe liver disease, Hypopituitarism, Hypothyroidism, Severe infections, Severe heart failure, Chronic kidney (renal) failure, Insulin overdose, Tumors that produce insulin (insulinomas), Starvation.



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End of Report

Dr. Ritesh Kharche
MD, PGD

Consultant Pathologist and Director of
Laboratory Services
RegNo: 2006/03/1680

GLYCOSYLATED HAEMOGLOBIN (HBA1C)-EDTA WHOLE BLOOD- Report has been amended at Mar 27 2024 12:26PM by Ritesh kharche.



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GLYCOSLYATED HAEMOGLOBIN (HBA1C)			
HbA1c <i>Method - Immunoturbidimetry</i>	5.88	%	4 to 6% Non-diabetic 6.0--7.0% Excellent control 7.0--8.0% Fair to good control 8.0--10% Unsatisfactory control ABOVE 10% Poor control
Estimated Average Glucose (eAG) <i>Method - Calculated</i>	122.06	mg/dl	90 - 126



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Normal : < 100 mg/dl

Impaired fasting glucose(Prediabetes) : 100 - 126 mg/dl

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seen with: Adrenal insufficiency, Drinking excessive alcohol, Severe liver disease, Hypopituitarism, Hypothyroidism, Severe infections, Severe heart failure, Chronic kidney (renal) failure, Insulin overdose, Tumors that produce insulin (insulinomas), Starvation.

Lipid Profile			
Total Cholesterol	158.55	mg/dl	CHILD Desirable - Less than : 170 CHILD Borderline High : 170-199 CHILD High - More than : 200 ADULT Desirable - Less than : 200 ADULT Borderline High : 200-239 ADULT High - More than : 240



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Triglycerides <i>Method - glycerol Phosphate Oxidase/Peroxide</i>	63.41	mg/dl	NORMAL : <150 Borderline High : 150-199 High : 200-499 Very High : > 500
HDL Cholesterol <i>Method - Enzymatic immuno inhibition</i>	34.94	mg/dl	Desirable - Above 60 Borderline Risk : 40-59 Undesirable - Below :40
LDL Cholesterol <i>Method - Calculated</i>	110.93	mg/dl	Desirable - Below : 130 Borderline Risk : 130-159 Undesirable - Above : 160
VLDL Cholesterol <i>Method - Calculated</i>	12.68	mg/dl	5 - 51
Total Cholesterol / HDL Cholesterol Ratio - Calculated <i>Method - Calculated</i>	4.54	RATIO	0 - 5
LDL / HDL Cholesterol Ratio - Calculated <i>Method - Calculated</i>	3.17	RATIO	0 - 3.6



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Interpretation

1. **Triglycerides:** When triglycerides are very high greater than 1000 mg/dL, there is a risk of developing pancreatitis in children and adults. Triglycerides change dramatically in response to meals, increasing as much as 5 to 10 times higher than fasting levels just a few hours after eating. Even fasting levels vary considerably day to day. Therefore, modest changes in fasting triglycerides measured on different days are not considered to be abnormal.
2. **HDL-Cholesterol:** HDL- C is considered to be beneficial, the so-called "good" cholesterol, because it removes excess cholesterol from tissues and carries it to the liver for disposal. If HDL-C is less than 40 mg/dL for men and less than 50 mg/dL for women, there is an increased risk of heart disease that is independent of other risk factors, including the LDL-C level. The NCEP guidelines suggest that an HDL cholesterol value greater than 60 mg/dL is protective and should be treated as a negative risk factor.
3. **LDL-Cholesterol:** Desired goals for LDL-C levels change based on individual risk factors. For young adults, less than 120 mg/dL is acceptable. Values between 120-159 mg/dL are considered Borderline high. Values greater than 160 mg/dL are considered high. Low levels of LDL cholesterol may be seen in people with an inherited lipoprotein deficiency and in people with hyperthyroidism, infection, inflammation, or cirrhosis.

Uric Acid (Serum)			
Method - Uricase			
Uric Acid	5.97	mg/dl	3.5 - 7.2
Method - Uricase			

References:

- 1) Pack Insert of Bio system
- 2) TIETZ Textbook of Clinical chemistry and Molecular Diagnostics Edited by: Carl A. burtis, Edward R. Ashwood, David e. Bruns

Interpretation:-

Uric acid is produced by the breakdown of purines. Purines are nitrogen-containing compounds found in the cells of the body, including our DNA. Increased concentrations of uric acid can cause crystals to form in the joints, which can lead to the joint inflammation and pain characteristic of gout. Low values can be associated with some kinds of liver or kidney diseases, Fanconi syndrome, exposure to toxic compounds, and rarely as the result of an inherited metabolic defect (Wilson disease).



LABORATORY INVESTIGATION REPORT

Patient Name : Mr. NILESH THIRUVENGADAM MUDALIAR UHID : SHHM.90450 Episode : OP Ref. Doctor : Self	Age/Sex : 33 Year(s) / Male Order Date : 27/03/2024 09:58 Mobile No : 9773495031 DOB : 20/01/1991 Facility : SEVENHILLS HOSPITAL, MUMBAI
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<u>Liver Function Test (LFT)</u>			
SGOT (Aspartate Transaminase) - SERUM <i>Method - IFCC</i>	19.54	IU/L	0 - 35
SGPT (Alanine Transaminase) - SERUM <i>Method - IFCC</i>	28.5	IU/L	0 - 45
Total Bilirubin - SERUM <i>Method - Diazo</i>	0.66	mg/dl	0 - 2
Direct Bilirubin - - SERUM <i>Method - Diazotization</i>	0.3	mg/dl	0 - 0.4
Indirect Bilirubin - Calculated <i>Method - Calculated</i>	0.36	mg/dl	0.1 - 0.8
Alkaline Phosphatase - SERUM <i>Method - IFCC AMP Buffer</i>	97.09	IU/L	43 - 115
Total Protein - SERUM <i>Method - Biuret</i>	6.96	gm/dl	6 - 7.8
Albumin - SERUM <i>Method - Bromo Cresol Green(BCG)</i>	4.54	gm/dl	3.5 - 5.2
Globulin - Calculated <i>Method - Calculated</i>	2.42	gm/dl	2 - 4
A:G Ratio <i>Method - Calculated</i>	1.88	:1	1 - 3



LABORATORY INVESTIGATION REPORT

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Episode : OP	
Ref. Doctor : Self	Mobile No : 9773495031
	DOB : 20/01/1991
	Facility : SEVENHILLS HOSPITAL, MUMBAI

References:

1) Pack Insert of Bio system

2) Tietz Textbook Of Clinical Chemistry And Molecular Diagnostics, 6th Ed, Editors: Rifai et al. 2018

Interperatation :-

Bilirubin is a yellowish pigment found in bile and is a breakdown product of normal heme catabolism. Elevated levels results from increased bilirubin production (eg hemolysis and ineffective erythropoiesis); decreased bilirubin excretion (eg; obstruction and hepatitis); and abnormal bilirubin metabolism (eg; hereditary and neonatal jaundice). conjugated (direct) bilirubin is also elevated more than unconjugated (indirect) bilirubin when there is some kind of blockage of the bile ducts like in Gallstones getting into the bile ducts tumors & Scarring of the bile ducts. Increased unconjugated (indirect) bilirubin may be a result of hemolytic or pernicious anemia, transfusion reaction & a common metabolic condition termed Gilbert syndrome.

AST levels increase in viral hepatitis, blockage of the bile duct ,cirrhosis of the liver, liver cancer, kidney failure, hemolytic anemia, pancreatitis, hemochromatosis. Ast levels may also increase after a heart attck or strenuous activity. ALT is commonly measured as a part of a diagnostic evaluation of hepatocellular injury, to determine liver health. Elevated ALP levels are seen in Biliary Obstruction, Osteoblastic Bone Tumors, Osteomalacia, Hepatitis, Hyperparathyroidism, Leukemia, Lymphoma, paget`s disease, Rickets, Sarcoidosis etc.

Elevated serum GGT activity can be found in diseases of the liver, Biliary system and pancreas. Conditions that increase serum GGT are obstructive liver disease, high alcohol consumption and use of enzyme-including drugs etc.

Serum total protein, also known as total protein, is a biochemical test for measuring the total amount of protein in serum..Protein in the plasma is made up of albumin and globulin. Higher-than-normal levels may be due to: Chronic inflammation or infection, including HIV and hepatitis B or C, Multiple myeloma, Waldenstrom's disease.

Lower-than-normal levels may be due to: Agammaglobulinemia, Bleeding (hemorrhage), Burns, Glomerulonephritis, Liver disease, Malabsorption, Malnutrition, Nephrotic - Human serum albumin is the most abundant protein in human blood plasma. It is produced in the liver. Albumin constitutes about half of the blood serum protein. Low blood albumin levels (hypoalbuminemia) can be caused by: Liver disease like cirrhosis of the liver, nephrotic syndrome, protein-losing enteropathy, Burns, hemodilution, increased vascular permeability or decreased lymphatic clearance, malnutrition and wasting etc.

Renal Function Test (RFT)			
Urea - SERUM <i>Method - Urease</i>	22.84	mg/dl	15 - 39
BUN - SERUM <i>Method - Urease-GLDH</i>	10.67	mg/dl	4 - 18
Creatinine - SERUM <i>Method - Jaffes Kinetic</i>	0.86	mg/dl	0.5 - 1.3



MC-5288

LABORATORY INVESTIGATION REPORT

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Ref. Doctor : Self	Mobile No : 9773495031
	DOB : 20/01/1991
	Facility : SEVENHILLS HOSPITAL, MUMBAI

References:

- 1) Pack Insert of Bio system
- 2) Tietz Textbook Of Clinical Chemistry And Molecular Diagnostics, 6th Ed, Editors: Rifai et al. 2018

Interpretation:-

The blood urea nitrogen or BUN test is primarily used, along with the creatinine test, to evaluate kidney function in a wide range of circumstances, to help diagnose kidney disease, and to monitor people with acute or chronic kidney dysfunction or failure. It also may be used to evaluate a person's general health status.

GLUCOSE-PLASMA POST PRANDIAL			
Glucose, Post Prandial	129.92	mg/dl	70 - 140

American Diabetes Association Reference Range :

Post-Prandial Blood Glucose:

- Non-Diabetic: Up to 140mg/dL
- Pre-Diabetic: 140-199 mg/dL
- Diabetic : >200 mg/dL

References:

- 1) Pack Insert of Bio system
- 2) Tietz Textbook Of Clinical Chemistry And Molecular Diagnostics, 6th Ed, Editors: Rifai et al. 2018

Interpretation :-

Conditions that can result in an elevated blood glucose level include: Acromegaly, Acute stress (response to trauma, heart attack, and stroke for instance), Chronic kidney disease, Cushing syndrome, Excessive consumption of food, Hyperthyroidism, Pancreatitis.

A low level of glucose may indicate hypoglycemia, a condition characterized by a drop in blood glucose to a level where first it causes nervous system symptoms (sweating, palpitations, hunger, trembling, and anxiety), then begins to affect the brain (causing confusion, hallucinations, blurred vision, and sometimes even coma and death). A low blood glucose level (hypoglycemia) may be seen with: Adrenal insufficiency, Drinking excessive alcohol, Severe liver disease, Hypopituitarism, Hypothyroidism, Severe infections, Severe heart failure, Chronic kidney (renal) failure, Insulin overdose, Tumors that produce insulin (insulinomas), Starvation.



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Ref. Doctor	: Self	DOB	: 20/01/1991
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End of Report

Dr. Ritesh Kharche
MD, PGD

Consultant Pathologist and Director of
Laboratory Services
RegNo: 2006/03/1680

GLYCOSYLATED HAEMOGLOBIN (HBA1C)-EDTA WHOLE BLOOD- Report has been amended at Mar 27 2024 12:26PM by Ritesh kharche.



LABORATORY INVESTIGATION REPORT

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Reference Ranges (T3) Pregnancy:

First Trimester 81 - 190

Second Trimester & Third Trimester 100 - 260

Reference Ranges (TSH) Pregnancy:

1st Trimester : 0.1 – 2.5

2nd Trimester : 0.2 – 3.0

3rd Trimester : 0.3 – 3.0

Reference:

1. Clinical Chemistry and Molecular Diagnostics, Tietz Fundamentals, 7th Edition & Endocrinology Guidelines

Interpretation :-

It is recommended that the following potential sources of variation should be considered while interpreting thyroid hormone results:

1. Thyroid hormones undergo rhythmic variation within the body this is called circadian variation in TSH secretion: Peak levels are seen between 2-4 am. Minimum levels seen between 6-10 am. This variation may be as much as 50% thus, influence of sampling time needs to be considered for clinical interpretation.
2. Circulating forms of T3 and T4 are mostly reversibly bound with Thyroxine binding globulins (TBG), and to a lesser extent with albumin and Thyroid binding PreAlbumin. Thus the conditions in which TBG and protein levels alter such as chronic liver disorders, pregnancy, excess of estrogens, androgens, anabolic steroids and glucocorticoids may cause misleading total T3, total T4 and TSH interpretations.
3. Total T3 and T4 levels are seen to have physiological rise during pregnancy and in patients on steroid treatment.
4. T4 may be normal the presence of hyperthyroidism under the following conditions : T3 thyrotoxicosis, Hypoproteinemia related reduced binding, during intake of certain drugs (eg Phenytoin, Salicylates etc)
5. Neonates and infants have higher levels of T4 due to increased concentration of TBG
6. TSH levels may be normal in central hypothyroidism, recent rapid correction of hypothyroidism or hyperthyroidism, pregnancy, phenytoin therapy etc.
7. TSH values of <0.03 uIU/mL must be clinically correlated to evaluate the presence of a rare TSH variant in certain individuals which is undetectable by conventional methods.
8. Presence of Autoimmune disorders may lead to spurious results of thyroid hormones
9. Various drugs can lead to interference in test results.
10. It is recommended that evaluation of unbound fractions, that is free T3 (FT3) and free T4 (FT4) for clinic-pathologic correlation, as these are the metabolically active forms.

End of Report



LABORATORY INVESTIGATION REPORT

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Age/Sex : 33 Year(s) / Male

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Order Date : 27/03/2024 09:58

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Ref. Doctor : Self

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Facility : SEVENHILLS HOSPITAL, MUMBAI

Dr.Ritesh Kharche
MD, PGD

Consultant Pathologist and Director of
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LABORATORY INVESTIGATION REPORT

Patient Name : Mr. NILESH THIRUVENGADAM MUDALIAR **Age/Sex** : 33 Year(s) / Male
UHID : SHHM.90450 **Order Date** : 27/03/2024 09:58
Episode : OP **Mobile No** : 9773495031
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Facility : SEVENHILLS HOSPITAL, MUMBAI

Urinalysis

Test Name	Result	Unit	Biological Reference Interval
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Sample No : O0322519D Collection Date : 27/03/24 10:07 Ack Date : 27/03/2024 10:37 Report Date : 27/03/24 13:20

URINE SUGAR AND KETONE (FASTING)

Sugar	Absent
ketones	Absent

Sample No : O0322594D Collection Date : 27/03/24 13:28 Ack Date : 27/03/2024 13:43 Report Date : 27/03/24 15:06

URINE SUGAR AND KETONE (PP)

Sugar	Absent
ketones	Absent

End of Report



Dr. Ritesh Kharche
MD, PGD

Consultant Pathologist and Director of
Laboratory Services
RegNo: 2006/03/1680

DIAGNOSTICS REPORT

Patient Name	: Mr. NILESH THIRUVENGADAM MUDALIAI	Order Date	: 27/03/2024 09:58
Age/Sex	: 33 Year(s)/Male	Report Date	: 27/03/2024 17:51
UHID	: SHHM.90450		
Ref. Doctor	:	Facility	: SEVENHILLS HOSPITAL, MUMBAI
		Mobile	: 9773495031
Address	: GHATKOPAR, GHATKOPAR, Mumbai, Maharashtra, 400086		

USG ABDOMEN AND PELVIS

Liver is normal in size (14.8 cm) and shows bright echotexture. No focal liver parenchymal lesion is seen.

Intrahepatic portal and biliary radicles are normal.

Gall-bladder is physiologically distended. No evidence of intraluminal calculus is seen. Wall thickness appears normal. No evidence of peri-cholecystic fluid is seen.

Portal vein and CBD are normal in course and calibre.

Visualised part of pancreas appears normal in size and echotexture. No evidence of duct dilatation or parenchymal calcification seen.

Spleen is normal in size (9.4 cm) and echotexture. No focal lesion is seen in the spleen.

Both the kidneys are normal in size, shape and echotexture. Cortico-medullary differentiation is maintained. No evidence of calculus or hydronephrosis on either side.

Right kidney measures 11.2 x 4.4 cm.

Left kidney measures 9.8 x 5.1 cm.

Urinary bladder is well distended and appears normal. No evidence of intra-luminal calculus or mass lesion.

Prostate appears normal in size and echotexture. It measures 3.8 x 3.2 x 3.2 cm corresponding to 21 cc.

There is no free fluid in abdomen and pelvis.

IMPRESSION

·Grade I fatty liver.



Dr. Priya Vinod Phayde
MBBS, DMRE

DIAGNOSTICS REPORT

Patient Name	: Mr. NILESH THIRUVENGADAM MUDALIAI	Order Date	: 27/03/2024 09:58
Age/Sex	: 33 Year(s)/Male	Report Date	: 27/03/2024 17:51
UHID	: SHHM.90450		
Ref. Doctor	:	Facility	: SEVENHILLS HOSPITAL, MUMBAI
		Mobile	: 9773495031
Address	: GHATKOPAR, GHATKOPAR, Mumbai, Maharashtra, 400086		

RegNo: 2020/11/6493

DIAGNOSTICS REPORT

Patient Name	: Mr. NILESH THIRUVENGADAM MUDALIAI	Order Date	: 27/03/2024 09:58
Age/Sex	: 33 Year(s)/Male	Report Date	: 28/03/2024 14:14
UHID	: SHHM.90450		
Ref. Doctor	:	Facility	: SEVENHILLS HOSPITAL, MUMBAI
		Mobile	: 9773495031
Address	: GHATKOPAR, GHATKOPAR, Mumbai, Maharashtra, 400086		

X-RAY CHEST PA VIEW

Both lungs are clear.

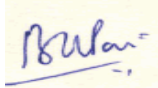
The frontal cardiac dimensions are normal.

The pleural spaces are clear.

Both hilar shadows are normal in position and density.

No diaphragmatic abnormality is seen.

Bilateral cervical ribs are seen



Dr. Bhujang Pai
MBBS, MD

Consultant

RegNo: 49380