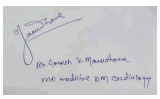
DIAGNOSTICS REPORT

Patient Name	: Mr. UTSAV HELAMBKAR	Order Date	: 16/10/2024 11:14
Age/Sex	: 37 Year(s)/Male	Report Date	: 16/10/2024 12:02
UHID	: SHHM.107987		
Ref. Doctor	: self	Facility	: SEVENHILLS HOSPITAL, MUMBAI
Address	: D 70 MEENA TOWERS, CHEMBUR,Mumbai, Maharashtra, 400071	Mobile	: 8806273020

2D ECHOCARDIOGRAPHY WITH COLOUR DOPPLER STUDY

Normal LV and RV systolic function.
Estimated LVEF = 60%
No LV regional wall motion abnormality at rest .
AII 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. UTSAV HELAMBKAR	**Age/Sex**	: 37 Year(s) / Male
UHID	: SHHM.107987	**Order Date**	: 16/10/2024 08:44
Episode	: OP		
Ref. Doctor	: self	**Mobile No**	: 8806273020
		DOB	: 21/01/1987
		Facility	: SEVENHILLS HOSPITAL, MUMBAI

Biochemistry

Test Name	Result	Unit	Biological Reference Interval
Sample No : O0366361B	Collection Date : 16/10/24 08:46	Ack Date : 16/10/2024 09:34	Report Date : 16/10/24 22:27
Blood Sugar FBS			
FBS *Method - Hexokinase*	79.72	mg/dl	70 - 100
GLUCOSE-PLASMA POST PRANDIAL			

American Diabetes Association Reference Range :

FASTING:-
Normal : < 100 mg/dl
Impaired fasting glucose(Prediabetes) : 100 - 126 mg/dl
Diabetes : >= 126 mg/dl

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.

Sample No : O0366361C	Collection Date : 16/10/24 08:46	Ack Date : 16/10/2024 09:34	Report Date : 16/10/24 11:00

MC-5288

LABORATORY INVESTIGATION REPORT

Patient Name	: Mr. UTSAV HELAMBKAR	**Age/Sex**	: 37 Year(s) / Male
UHID	: SHHM.107987	**Order Date**	: 16/10/2024 08:44
Episode	: OP		
Ref. Doctor	: self	**Mobile No**	: 8806273020
		DOB	: 21/01/1987
		Facility	: SEVENHILLS HOSPITAL, MUMBAI

ALT(SGPT) - SERUM			
SGPT (Alanine Transaminase) - SERUM *Method - IFCC*	10.88	IU/L	0 - 45

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

Total Bilirubin - SERUM *Method - Diazo*	0.68	mg/dl	0 - 2
Direct Bilirubin - - SERUM *Method - Diazotization*	0.36	mg/dl	0 - 0.4
Indirect Bilirubin - Calculated *Method - Calculated*	0.32	mg/dl	0.1 - 0.8
BUN-SERUM			
Urea - SERUM *Method - Urease*	17.85	mg/dl	15 - 39
BUN - SERUM *Method - Urease-GLDH*	8.34	mg/dl	4 - 18

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

CREATININE-SERUM			
Creatinine - SERUM *Method - Jaffes Kinetic*	0.93	mg/dl	0.5 - 1.3

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

Notes :-
Creatinine is a chemical waste molecule that is generated from muscle metabolism.Creatinine is produced from creatine, a molecule of major importance for energy production in muscles.Approximataly 1-2% of the body's creatine is converted to creatinine every day. Creatinine is transported through the bloodstream to the kidneys. The kidneys filter out host of the creatinine and dispose of it in the urine.The kidneys maintain the blood creatinine in a normal ranges . Creatinine has been found to be a fairly reliable indicator of kidney function.

End of Report

MC-5288

LABORATORY INVESTIGATION REPORT

Patient Name	: Mr. UTSAV HELAMBKAR	**Age/Sex**	: 37 Year(s) / Male
UHID	: SHHM.107987	**Order Date**	: 16/10/2024 08:44
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		DOB	: 21/01/1987
		Facility	: SEVENHILLS HOSPITAL, MUMBAI

Dr.Ritesh Kharche
MD, PGD-HM
Consultant Pathologist and Director of Laboratory Services
RegNo: 2006/03/1680

Dr.Pooja Vinod Mishra
MD Pathology
Jr Consultant Pathologist, MMC Reg No. 2017052191
RegNo: 2017/05/2191

Dr.Nipa Dhorda
MD
Pathologist
RegNo: 91821

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MC-5288

LABORATORY INVESTIGATION REPORT

Patient Name	: Mr. UTSAV HELAMBKAR	**Age/Sex**	: 37 Year(s) / Male
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Blood Bank

Test Name	Result

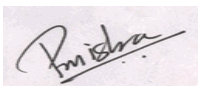
Sample No : O0366361A Collection Date : 16/10/24 08:46 Ack Date : 16/10/2024 12:35 Report Date : 16/10/24 13:02

BLOOD GROUPING/ CROSS-MATCHING BY SEMI AUTOMATION.			
BLOOD GROUP (ABO)	' A '		
Rh Type *Method - Column Agglutination*	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.
• Cross-matching test is done to assess compatibility of donor red cells to the patient.

End of Report



Dr.Pooja Vinod Mishra
MD Pathology
Jr Consultant Pathologist, MMC Reg No. 2017052191
RegNo: 2017/05/2191

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LABORATORY INVESTIGATION REPORT

Patient Name	: Mr. UTSAV HELAMBKAR	**Age/Sex**	: 37 Year(s) / Male
UHID	: SHHM.107987	**Order Date**	: 16/10/2024 11:14
Episode	: OP		
Ref. Doctor	: self	**Mobile No**	: 8806273020
		DOB	: 21/01/1987
		Facility	: SEVENHILLS HOSPITAL, MUMBAI

HAEMATOLOGY

Sample No : O0366407A Collection Date : 16/10/24 11:31 Ack Date : 16/10/2024 11:49 Report Date : 16/10/24 12:06

Test Name	Result	Unit	Biological Reference Interval
COMPLETE BLOOD COUNT (CBC) - EDTA WHOLE BLOOD			
Total WBC Count	8.74	x10^3/ul	4.00 - 10.00
Neutrophils	58.1	%	40.00 - 80.00
Lymphocytes	30.4	%	20.00 - 40.00
Eosinophils	**6.8 ▲ (H)**	%	1.00 - 6.00
Monocytes	4.5	%	2.00 - 10.00
Basophils	**0.2 ▼ (L)**	%	1.00 - 2.00
Absolute Neutrophil Count	5.08	x10^3/ul	2.00 - 7.00
Absolute Lymphocyte Count	2.66	x10^3/ul	0.80 - 4.00
Absolute Eosinophil Count	**0.59 ▲ (H)**	x10^3/ul	0.02 - 0.50
Absolute Monocyte Count	0.39	x10^3/ul	0.12 - 1.20
Absolute Basophil Count	0.02	x10^3/ul	0.00 - 0.10
RBCs	**5.60 ▲ (H)**	x10^6/ul	4.50 - 5.50
Hemoglobin	16.3	gm/dl	13.00 - 17.00
Hematocrit	**47.3 ▲ (H)**	%	35.00 - 45.00
MCV	84.5	fl	83.00 - 101.00
MCH	29.0	pg	27.00 - 32.00
MCHC	34.4	gm/dl	31.50 - 34.50

MC-5288

LABORATORY INVESTIGATION REPORT

Patient Name	: Mr. UTSAV HELAMBKAR	**Age/Sex**	: 37 Year(s) / Male
UHID	: SHHM.107987	**Order Date**	: 16/10/2024 11:14
Episode	: OP		
Ref. Doctor	: self	**Mobile No**	: 8806273020
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		Facility	: SEVENHILLS HOSPITAL, MUMBAI

RED CELL DISTRIBUTION WIDTH-CV (RDW-CV)	13.1	%	11.00 - 16.00
RED CELL DISTRIBUTION WIDTH-SD (RDW-SD)	41.8	fl	35.00 - 56.00
Platelet	**416 ▲ (H)**	x10^3/ul	150.00 - 410.00
Mean Platelet Volume (MPV)	8.8	fl	6.78 - 13.46
PLATELET DISTRIBUTION WIDTH (PDW)	15.9	%	9.00 - 17.00
PLATELETCRIT (PCT)	**0.365 ▲ (H)**	%	0.11 - 0.28

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.

End of Report

Dr.Ritesh Kharche
MD, PGD-HM
Consultant Pathologist and Director of Laboratory Services
RegNo: 2006/03/1680

MC-5288

LABORATORY INVESTIGATION REPORT

Patient Name	: Mr. UTSAV HELAMBKAR	**Age/Sex**	: 37 Year(s) / Male
UHID	: SHHM.107987	**Order Date**	: 16/10/2024 11:14
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MC-5288

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Ref. Doctor	: self	**Mobile No**	: 8806273020
		DOB	: 21/01/1987
		Facility	: SEVENHILLS HOSPITAL, MUMBAI

HAEMATOLOGY

Test Name	Result	Unit	Biological Reference Interval

Sample No : O0366407A Collection Date : 16/10/24 11:31 Ack Date : 16/10/2024 11:49 Report Date : 16/10/24 12:06

ERYTHROCYTE SEDIMENTATION RATE (ESR)			
ESR	15	mm/hr	0 - 20

Method: Westergren Method

INTERPRETATION :-
ESR is a non-specific phenomenon, its measurement is clinically useful in disorders associated with an increased production of acute-phase proteins. It provides an index of progress of the disease in rheumatoid arthritis or tuberculosis, and it is of considerable value in diagnosis of temporal arteritis and polymyalgia rheumatica. It is often used if multiple myeloma is suspected, but when the myeloma is non-secretory or light chain, a normal ESR does not exclude this diagnosis.

An elevated ESR may occur as an early feature in myocardial infarction. Although a normal ESR cannot be taken to exclude the presence of organic disease, the vast majority of acute or chronic infections and most neoplastic and degenerative diseases are associated with changes in the plasma proteins that increased ESR values.

The ESR is influenced by age, stage of the menstrual cycle and medications taken (corticosteroids, contraceptive pills). It is especially low (0–1 mm) in polycythaemia, hypofibrinogenaemia and congestive cardiac failure and when there are abnormalities of the red cells such as poikilocytosis, spherocytosis, or sickle cells. In cases of performance enhancing drug intake by athletes the ESR values are generally lower than the usual value for the individual and as a result of the increase in haemoglobin (i.e. the effect of secondary polycythaemia).

End of Report

Dr.Ritesh Kharche
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RegNo: 2006/03/1680

LABORATORY INVESTIGATION REPORT

Patient Name	: Mr. UTSAV HELAMBKAR	**Age/Sex**	: 37 Year(s) / Male
UHID	: SHHM.107987	**Order Date**	: 16/10/2024 11:14
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		DOB	: 21/01/1987
		Facility	: SEVENHILLS HOSPITAL, MUMBAI

LABORATORY INVESTIGATION REPORT

Patient Name	: Mr. UTSAV HELAMBKAR	**Age/Sex**	: 37 Year(s) / Male
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Ref. Doctor	: self	**Mobile No**	: 8806273020
		DOB	: 21/01/1987
		Facility	: SEVENHILLS HOSPITAL, MUMBAI

Biochemistry

Test Name	Result	Unit	Biological Reference Interval
Sample No : O0366407A	Collection Date : 16/10/24 11:31	Ack Date : 16/10/2024 11:49	Report Date : 16/10/24 12:57
GLYCOSLYATED HAEMOGLOBIN (HBA1C)			
HbA1c *Method - Immunoturbidimetry*	5.85	%	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) *Method - Calculated*	121.19	mg/dl	90 - 126

NOTES :-

1. HbA1c is used for monitoring diabetic control. It reflects the mean plasma glucose over three months

2. 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.

3. 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.

4. HbA1c may be increased in patients with polycythemia or post-splenectomy.

5. Inappropriately higher values of HbA1c may be caused due to iron deficiency, vitamin B12 deficiency, alcohol intake, uremia, hyperbilirubinemia and large doses of aspirin.

6. Trends in HbA1c are a better indicator of diabetic control than a solitary test.

7. 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.

8. HbA1c target in pregnancy is to attain level <6 % .

9. 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

Sample No : O0366407B	Collection Date : 16/10/24 11:31	Ack Date : 16/10/2024 12:15	Report Date : 16/10/24 12:16

MC-5288

LABORATORY INVESTIGATION REPORT

Patient Name	: Mr. UTSAV HELAMBKAR	**Age/Sex**	: 37 Year(s) / Male
UHID	: SHHM.107987	**Order Date**	: 16/10/2024 11:14
Episode	: OP		
Ref. Doctor	: self	**Mobile No**	: 8806273020
		DOB	: 21/01/1987
		Facility	: SEVENHILLS HOSPITAL, MUMBAI

GLUCOSE-PLASMA-FASTING			
Glucose,Fasting	79.72	mg/dl	70 - 100

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	188.13	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

MC-5288

LABORATORY INVESTIGATION REPORT

Patient Name	: Mr. UTSAV HELAMBKAR	**Age/Sex**	: 37 Year(s) / Male
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Triglycerides *Method - glycerol Phosphate Oxidase/Peroxide*	127.54	mg/dl	NORMAL : <150 Borderline High : 150-199 High : 200-499 Very High : > 500
HDL Cholesterol *Method - Enzymatic immuno inhibition*	40.19	mg/dl	Desirable - Above 60 Borderline Risk : 40-59 Undesirable - Below :40
LDL Cholesterol *Method - Calculated*	122.43	mg/dl	Desirable - Below : 130 Borderline Risk : 130-159 Undesirable - Above : 160
VLDL Cholesterol *Method - Calculated*	25.51	mg/dl	5 - 51
Total Cholesterol / HDL Cholesterol Ratio - Calculated *Method - Calculated*	4.68	RATIO	0 - 5
LDL / HDL Cholesterol Ratio - Calculated *Method - Calculated*	3.05	RATIO	0 - 3.6

Note:
1) Biological Reference Intervals are as per ATP III, NCEP Guidelines and National Lipid Association (NLA) 2014 Recommendations
2) Tests done on Fully Automated Biosystem BA-400 Biochemistry Analyser.
3)The LDL-Cholesterol is calculated by the Friedewald equation which provides a reliable LDL-Cholesterol value estimate when triglyceride levels are below 400 mg/dL. A direct measurement is advised if the triglyceride levels are >400mg/dL.
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

MC-5288

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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 *Method - Uricase*	5.53	mg/dl	3.5 - 7.2

References:
1)Pack Insert of Bio system
2) TIETZ Textbook of Clinical chemistry and Molecular DiagnosticsEdited 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).

Liver Function Test (LFT)			
SGOT (Aspartate Transaminase) - SERUM *Method - IFCC*	11.02	IU/L	0 - 35
SGPT (Alanine Transaminase) - SERUM *Method - IFCC*	10.73	IU/L	0 - 45
Total Bilirubin - SERUM *Method - Diazo*	0.7	mg/dl	0 - 2
Direct Bilirubin - - SERUM *Method - Diazotization*	0.32	mg/dl	0 - 0.4
Indirect Bilirubin - Calculated *Method - Calculated*	0.38	mg/dl	0.1 - 0.8

MC-5288

LABORATORY INVESTIGATION REPORT

Patient Name	: Mr. UTSAV HELAMBKAR	**Age/Sex**	: 37 Year(s) / Male
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Alkaline Phosphatase - SERUM *Method - IFCC AMP Buffer*	71.18	IU/L	43 - 115
Total Protein - SERUM *Method - Biuret*	7.25	gm/dl	6 - 7.8
Albumin - SERUM *Method - Bromo Cresol Green(BCG)*	4.58	gm/dl	3.5 - 5.2
Globulin - Calculated *Method - Calculated*	2.67	gm/dl	2 - 4
A:G Ratio *Method - Calculated*	1.72	:1	1 - 3

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 Gallstonesgetting 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, Hyperparathyriodism, 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)			

MC-5288

LABORATORY INVESTIGATION REPORT

Patient Name	: Mr. UTSAV HELAMBKAR	**Age/Sex**	: 37 Year(s) / Male
UHID	: SHHM.107987	**Order Date**	: 16/10/2024 11:14
Episode	: OP		
Ref. Doctor	: self	**Mobile No**	: 8806273020
		DOB	: 21/01/1987
		Facility	: SEVENHILLS HOSPITAL, MUMBAI

Urea - SERUM *Method - Urease*	17.85	mg/dl	15 - 39
BUN - SERUM *Method - Urease-GLDH*	8.34	mg/dl	4 - 18
Creatinine - SERUM *Method - Jaffes Kinetic*	0.93	mg/dl	0.5 - 1.3

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	111.41	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

MC-5288

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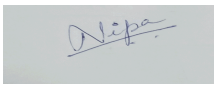
(insulinomas),Starvation.

End of Report

Dr.Ritesh Kharche
MD, PGD-HM
Consultant Pathologist and Director of Laboratory Services
RegNo: 2006/03/1680



Dr.Nipa Dhorda
MD
Pathologist
RegNo: 91821

MC-5288

LABORATORY INVESTIGATION REPORT

Patient Name	: Mr. UTSAV HELAMBKAR	**Age/Sex**	: 37 Year(s) / Male
UHID	: SHHM.107987	**Order Date**	: 16/10/2024 11:14
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		DOB	: 21/01/1987
		Facility	: SEVENHILLS HOSPITAL, MUMBAI

IMMUNOLOGY

Sample No : O0366407C Collection Date : 16/10/24 11:31 Ack Date : 16/10/2024 12:00 Report Date : 16/10/24 12:57

Test Name	Result	Unit	Biological Reference Interval
T3 - SERUM *Method - CLIA*	101.6	ng/dl	70.00 - 204.00
TFT- Thyroid Function Tests			
T4 - SERUM *Method - CLIA*	6.84	ug/dL	4.60 - 10.50
TSH - SERUM *Method - CLIA*	1.42	uIU/ml	0.40 - 4.50

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 & Endocronology Guideliens

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,

MC-5288

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Patient Name	: Mr. UTSAV HELAMBKAR	**Age/Sex**	: 37 Year(s) / Male
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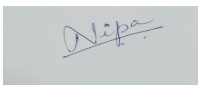
		Facility	: SEVENHILLS HOSPITAL, MUMBAI

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



Dr.Nipa Dhorda
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RegNo: 91821

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MC-5288

LABORATORY INVESTIGATION REPORT

Patient Name	: Mr. UTSAV HELAMBKAR	**Age/Sex**	: 37 Year(s) / Male
UHID	: SHHM.107987	**Order Date**	: 16/10/2024 11:14
Episode	: OP		
Ref. Doctor	: self	**Mobile No**	: 8806273020
		DOB	: 21/01/1987
		Facility	: SEVENHILLS HOSPITAL, MUMBAI

Urinalysis

Test Name	Result	Unit	Biological Reference Interval
Sample No : O0366407D	Collection Date : 16/10/24 11:31	Ack Date : 16/10/2024 13:26	Report Date : 16/10/24 13:35
URINE SUGAR AND KETONE (FASTING)			
Glucose	Absent		
ketones	Absent		
Sample No : O0366462D	Collection Date : 16/10/24 14:25	Ack Date : 16/10/2024 14:53	Report Date : 16/10/24 22:27
URINE SUGAR AND KETONE (PP)			
Glucose	Absent		
ketones	Absent		

End of Report

Dr.Ritesh Kharche
MD, PGD-HM
Consultant Pathologist and Director of Laboratory Services
RegNo: 2006/03/1680

Dr.Nipa Dhorda
MD
Pathologist
RegNo: 91821

LABORATORY INVESTIGATION REPORT

Patient Name	: Mr. UTSAV HELAMBKAR	**Age/Sex**	: 37 Year(s) / Male
UHID	: SHHM.107987	**Order Date**	: 16/10/2024 08:44
Episode	: OP		
Ref. Doctor	: self	**Mobile No**	: 8806273020
		DOB	: 21/01/1987
		Facility	: SEVENHILLS HOSPITAL, MUMBAI

Urinalysis

Sample No : O0366368D Collection Date : 16/10/24 09:06 Ack Date : 16/10/2024 09:51 Report Date : 16/10/24 13:36

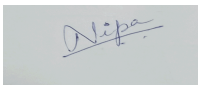
Test Name	Result	Unit	Biological Reference Interval
Physical Examination			
QUANTITY	25	ml	
Colour	Pale Yellow		
Appearance	Clear		
DEPOSIT	Absent		Absent
pH	Acidic		
Specific Gravity	1.010		
Chemical Examination			
Protein	Absent		Absent
Glucose	Absent		
ketones	Absent		
Blood	NEGATIVE		Negative
Bilirubin	Negative		
Urobilinogen	Normal		Normal
NITRITE	Absent		Absent
LEUKOCYTES	Absent		
Microscopic Examination			
Pus cells	OCCASIONAL	/HPF	
Epithelial Cells	OCCASIONAL	/HPF	

LABORATORY INVESTIGATION REPORT

Patient Name	: Mr. UTSAV HELAMBKAR	**Age/Sex**	: 37 Year(s) / Male
UHID	: SHHM.107987	**Order Date**	: 16/10/2024 08:44
Episode	: OP		
Ref. Doctor	: self	**Mobile No**	: 8806273020
		DOB	: 21/01/1987
		Facility	: SEVENHILLS HOSPITAL, MUMBAI

RBC	Absent	/HPF	Absent
Cast	Absent	/LPF	
Crystal	Absent	/HPF	
Amorphous Materials	Absent		
Yeast	Absent		
Bacteria	Absent		

End of Report



Dr.Nipa Dhorda
MD
Pathologist

RegNo: 91821

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DIAGNOSTICS REPORT

Patient Name	: Mr. UTSAV HELAMBKAR	Order Date	: 16/10/2024 11:14
Age/Sex	: 37 Year(s)/Male	Report Date	: 17/10/2024 09:25
UHID	: SHHM.107987		
Ref. Doctor	: self	Facility	: SEVENHILLS HOSPITAL, MUMBAI
Address	: D 70 MEENA TOWERS, CHEMBUR,Mumbai, Maharashtra, 400071	Mobile	: 8806273020

USG ABDOMEN AND PELVIS

Liver is normal in size (13.1 cm) and shows bright echotexture. No focal liver parenchymal lesion is seen.
Intrahepatic portal and biliary radicles are normal.

Gall-bladder is minimally distended.

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 (8.1 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 9.4 x 4.6 cm.
Left kidney measures 9.7 x 5.2 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 3.2 x 3.1 x 3.1 cm corresponding to 16.9 cc.

There is no free fluid in abdomen and pelvis.

IMPRESSION

- **Grade I fatty liver.**

DIAGNOSTICS REPORT

Patient Name	: Mr. UTSAV HELAMBKAR	Order Date	: 16/10/2024 11:14
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UHID	: SHHM.107987		
Ref. Doctor	: self	Facility	: SEVENHILLS HOSPITAL, MUMBAI
Address	: D 70 MEENA TOWERS, CHEMBUR,Mumbai, Maharashtra, 400071	Mobile	: 8806273020

Dr.Priya Vinod Phayde
MBBS,DMRE

RegNo: 2020/11/6493

DIAGNOSTICS REPORT

Patient Name	: Mr. UTSAV HELAMBKAR	Order Date	: 16/10/2024 11:14
Age/Sex	: 37 Year(s)/Male	Report Date	: 17/10/2024 12:38
UHID	: SHHM.107987		
Ref. Doctor	: self	Facility	: SEVENHILLS HOSPITAL, MUMBAI
Address	: D 70 MEENA TOWERS, CHEMBUR,Mumbai, Maharashtra, 400071	Mobile	: 8806273020

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.

The soft tissues and bony thorax are normal.

IMPRESSION: No pleuroparenchymal lesion is seen.

Dr.Bhujang Pai
MBBS,MD

Consultant

RegNo: 49380